DOCUMENT RESUME

ED 426 212 CE 077 804

AUTHOR Pirrie, Anne; Wilson, Valerie; Elsegood, John; Hall, John; Hamilton, Sheila; Harden, Ronald; Lee, Diana; Stead, Joan

TITLE Evaluating Multidisciplinary Education in Health Care.
INSTITUTION Scottish Council for Research in Education, Edinburgh.
SPONS AGENCY Scottish Office Health Dept., Edinburgh.
REPORT NO SCRE-RR-89
ISBN ISBN-1-86003-044-0
PUB DATE 1998-00-00
NOTE 84p.
AVAILABLE FROM Scottish Council for Research in Education, 15 St. John Street, Edinburgh, EH8 8JR Scotland; Web site: http://www.scre.ac.uk (7.50 British pounds).
PUB TYPE Reports - Research (143)
EDRS PRICE EDRS Price MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS *Allied Health Occupations Education; Developed Nations; Foreign Countries; *Health Personnel; *Interdisciplinary Approach; *Medical Education; Postsecondary Education; Program Evaluation; Secondary Education
IDENTIFIERS *Multidisciplinary Education; United Kingdom

ABSTRACT

A 2-year study evaluated students' and course organizers' perceptions of the effectiveness of multidisciplinary education (ME) in health care and factors that facilitate or inhibit its development. The study had three phases: a survey of ME provision in the United Kingdom; 42 qualitative interviews and focus groups in 14 sites; and data feedback. Literature review and focus group results led to a definition of ME. Findings include: ME is perceived to be more effective at the postgraduate level; communication is enhanced when students have developed a greater understanding of other professionals' roles; and ME may reinforce participants' sense of their own professional identity, lead to increased personal and professional confidence, and ensure better and more cohesive working practices. Committed individuals, staff with a sense of purpose who work together, staff development, and institutional support facilitated development. The following factors inhibited it: imbalance in student numbers; suitable accommodation for large- and small-group teaching; access to library and information technology facilities; timetabling across groups; the role of professional bodies; unsynchronized validation cycles and profession-specific accreditation; funding constraints; and competition within the sector. Findings from interviews with education commissioners were consistent. Recommendations were made for course organizers and policy makers and education commissioners. (The report contains 65 references. Appendixes include methodology, data collection overview, interview guides, and feedback summary.) (YLB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 426 212

The Scottish Council for Research in Education

CE

Evaluating Multidisciplinary Education in Health Care

Anne Pirrie/ Valerie Wilson/John Elsegood
John Hall/ Sheila Hamilton/ Ronald Harden
Diana Lee/ Joan Stead

RESEARCH REPORT SERIES

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY
R Wake
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
2A

BEST COPY AVAILABLE

CE017804

SCRE

Evaluating Multidisciplinary Education in Health Care

Anne Pirrie/ Valerie Wilson/John Elsegood
John Hall/ Sheila Hamilton/ Ronald Harden
Diana Lee/ Joan Stead

SCRE
The Scottish Council for Research in Education

SCRE Research Report No 89

ISBN 1 86003 044 0

Copyright © 1998 The Scottish Council for Research in Education

First published December 1998

This two-year study, commissioned by the Department of Health, set out to evaluate students' and course organisers' perceptions of the effectiveness of multidisciplinary education in healthcare. The focus was on medicine, nursing, midwifery, occupational therapy, physiotherapy and diagnostic radiography. Respondents were convinced of the potential benefits of such courses but, on balance, considered them to have a greater impact at post-registration level, once students had had time to develop their own professional roles. The evaluation was carried out by researchers at SCRE in association with the School of Nursing at the University of East Anglia and the Centre for Medical Education at the University of Dundee.

Researchers: *Anne Pirrie (SCRE)/ Valerie Wilson (formerly SCRE)/ John Elsegood (University of East Anglia)/ John Hall (SCRE)/ Sheila Hamilton (SCRE)/ Ronald Harden (University of Dundee)/ Diana Lee (University of East Anglia)/ Joan Stead (formerly SCRE)*

The views expressed are those of the authors and are not necessarily those of the Scottish Council for Research in Education or the Department of Health

Printed and bound by the Scottish Council for Research in Education, 15 St John Street, Edinburgh EH8 8JR.

Contents

		Page
Acknowledgements		**iv**
1	**Introduction**	**1**
	1.1 Research outline	1
	1.2 Preliminaries: literature review and focus group discussion	1
	1.3 Phase 1: the survey	1
	1.4 Phase 2: qualitative interviews in fourteen sites	1
	1.5 Phase 3: data feedback	2
	1.6 Research questions	2
	1.7 Structure of the report	2
2	**Background**	**4**
	2.1 Introduction	4
	2.2 Changes in the NHS	4
	2.3 Changes in the way health professionals are educated	6
	2.4 Rationale for the current study	7
	2.5 Summary	8
3	**Methodology**	**9**
	3.1 Phase 1: the survey	9
	3.2 Phase 2: the interview sites	10
	3.3 Phase 3: data feedback	11
	3.4 Data overview	11
4	**Reflections on terminology**	**13**
	4.1 Introduction	13
	4.2 'A terminological quagmire'	13
	4.3 Summary	18
5	**Perceptions of multidisciplinary education and practice**	**19**
	5.1 Introduction	19
	5.2 Pre- and post-registration provision	19
	5.3 Perceived impact of multidisciplinary education	22
	5.4 Working together, learning together in general practice	27
	5.5 Working together, learning together in A & E	28
	5.6 Perceived impact upon practice	29
	5.7 Summary	30
6	**Facilitators**	**31**
	6.1 Introduction	31
	6.2 Intra-institutional facilitators	31
	6.3 Extra-institutional facilitators	33
	6.4 Summary	36
7	**Inhibitors**	**37**
	7.1 Introduction	37
	7.2 Intra-institutional inhibitors	37
	7.3 Extra-institutional inhibitors	40
	7.4 Summary	45

8 The commissioners' perspective **46**
8.1 Introduction 46
8.2 Changes in the NHS 46
8.3 Rationale: supporting changes in health care delivery 47
8.4 Perceptions of effectiveness 47
8.5 Factors promoting development and implementation 48
8.6 Factors inhibiting development and implementation 49
8.7 Summary 51

9 Conclusions **52**
9.1 Introduction 52
9.2 Perceptions of multidisciplinary education and practice 52
9.3 Factors which promote multidisciplinary education 52
9.4 Factors which inhibit multidisciplinary education 53
9.5 Recommendations 54

References **56**

Appendices
1: Methodology 60
2. Overview of data collection in the fourteen sites 64
3: Patterns of multidisciplinary provision 65
4: Topic guides 66
5: Coding framework 69
6a: Feedback summary 70
6b: Covering letter for feedback summary 73
6c: Summary of feedback responses 74

Acknowledgements

This report could not have been written without the help and support of a great many people. We are especially grateful to those who agreed to be interviewed, and found time to provide such useful feedback on the research findings. We should also like to thank the members of the Project Advisory Group for their invaluable insights into education and training in health care.

As a multidisciplinary team dispersed over three sites, we have learned much about teamwork and the need to respect and value our colleagues' contributions. We very much hope that the whole is greater than the sum of its parts. In any case, any gaps or absences in this report should be attributed to its authors. We are as ever indebted to Kay Young, the Project Secretary for her painstaking work and support.

1: Introduction

1.1 Research outline

In March 1996, the Scottish Council for Research in Education (SCRE) was commissioned by the Department of Health to undertake a two-year evaluation of perceptions of the effectiveness of multidisciplinary education in health care. The study was undertaken in association with the School of Nursing and Midwifery at the University of East Anglia and the Centre for Medical Education at the University of Dundee.

The research had five broad objectives, viz

- to outline the context in which multidisciplinary education has developed
- to map the extent of multidisciplinary provision throughout the UK
- to provide working definitions of multidisciplinary and interdisciplinary education
- to investigate stakeholders' perceptions of multidisciplinary education at both undergraduate/pre-registration and postgraduate/post-registration levels
- to identify factors which either facilitated or inhibited its development.

1.2 Preliminaries: literature review and focus group discussion

In the early stages of the study we conducted a literature review to inform our understanding of the contextual issues surrounding the notions of learning together and working together. The literature review drew our attention to the confusion surrounding the use of terms such as 'multidisciplinary' and 'interdisciplinary'. We address this in Section 4 by providing a set of working definitions of these terms.[1] The review also drew our attention to which groups were engaging in some form of multidisciplinary education; the nature of such initiatives; and which of these had already been evaluated (see Section 2).

We also organised a preliminary focus group meeting, the principal aim of which was to elucidate the use of terminology (see Section 4).

1.3 Phase 1: the survey

Phase 1 of the study comprised a survey of multidisciplinary educational provision in the UK. The main purpose of the survey was to enable us to select sites in which to conduct the qualititative interviews in Phase 2. It was our intention that these be broadly representative of the balance of pre- to post-registration provision in respect of multidisciplinary educational initiatives for health care professionals.

1.4 Phase 2: qualitative interviews in fourteen sites

Phase 2 comprised qualitative interviews and a series of focus groups with a wide variety of stakeholders (see Section 3). The main purpose of this phase of the study was to gather qualitative data to enhance our understanding of perceptions of

multidisciplinary education and the factors which appear to facilitate or inhibit its development.

1.5 Phase 3: data feedback

In the final data-gathering phase (Phase 3), issues emerging from the interviews and focus group meetings were circulated to the participating institutions and any feedback recorded (see Appendix 6).

1.6 Research questions

In order to evaluate the perceived impact of multidisciplinary education in health care, we address the questions in this report:

- what is the social and policy context in which multidisciplinary education is developing?
- what is understood by the terms 'multidisciplinary' and 'interdisciplinary'?
- at what level (pre- or post-registration) is it perceived to be more effective?
- what is its perceived impact upon communication: mutual understanding between the professions; and upon personal and professional confidence?
- what is its perceived impact upon practice?
- what factors are perceived to facilitate the development of multidisciplinary education?
- what factors are perceived to inhibit its development?
- how do education commissioners view multidisciplinary education?

1.7 Structure of the report

This final report is structured as follows:

Section 2

- the social and policy context

Section 3

- an account of our methodology in Phase 1 and Phase 2.

We present our findings in Sections 4-9.

Section 4

- working definitions of multidisciplinary and interdisciplinary education

Section 5

- perceptions of multidisciplinary education

Section 6

- factors which appear to facilitate multidisciplinary education

Section 7

- factors which appear to inhibit multidisciplinary education

Section 8

- purchasers' and commissioners' views of multidisciplinary education

Section 9

- conclusions.

Notes

1 We use the term 'multidisciplinary' to describe a situation in which students from different professional groups come together to enhance their knowledge and understanding of particular elements of their professional practice.

2: Background

2.1 Introduction

In this section we outline the social and policy context in which multidisciplinary education has developed. We also briefly describe how changes in the way in which health professionals are educated impact upon the development of multidisciplinary education. We conclude by outlining the rationale for the current study.

2.2 Changes in the NHS

Much has been written over the last few years about how changes in patterns of health care delivery, and in the structure of the NHS itself have impacted upon the development of the health professions (cf, for example, Leathard, 1994 pp7-23; Mackay, Soothill & Webb, 1995 pp5-10; Hugman, 1995 pp31-45; Tope, 1996 pp57-71; Biggs, 1993 p151; Shaw, 1993 pp256-262; Poulton and West, 1993 pp918-920; Weinstein, 1994, pp[illegible]).

It is clear that the development of a primary-care-led NHS, which looks set to continue under the present government, has led to a significant reappraisal of working practices and a renewed emphasis on collaboration and teamwork between health and social care professionals in the best interests of the patient. The focus has gradually shifted from a concentration on the 'specific combinations of skills, knowledge and values' (Hugman, 1995, p41) that characterise any one health profession to the ways in which health and social care professionals can deploy a range of skills— many of which are complementary or overlapping— in the interests of efficient and effective patient care.

As the following quotations illustrate, multidisciplinary education at a relatively early phase of professional development is seen as one way of equipping these professionals to provide a service which is to all intents and purposes 'seamless', although delivered by health and social care workers who have retained their distinct professional identities:

> ... professional education should [illegible]pare individual practitioners for ... collaborative working ... to enable [illegible] professional to retain certain unique areas of skill and knowledge, while sharing over-lapping aspects of knowledge and skills. ... The lack of early interdisciplinary training helps to perpetuate misunderstandings about different professional approaches and their underlying values.[1]

> Each therapist should be aware of the specific skills of others in order to achieve effective and cohesive collaborative working. ... The philosophy of integration should start at undergraduate level and can be progressed throughout the career development of all therapists.[2]

The literature provides ample evidence that the perceived benefits of multidisciplinary education at pre-and post-registration levels are widely appreciated in Europe (Areskog, 1988; 1992; 1994; Goble, 1994) and in the US (cf, for example, Clark, 1993; Casto, 1994; Casto & Julia, 1994) and further afield

(WHO, 1988). As Carpenter (1995a) points out, 'none of these programmes seems to have been satisfactorily evaluated.' (p265) The evidence for common introductory multidisciplinary programmes, such as the Linköping University model outlined in Areskog's research, shows that perceived benefits include positive feedback and enhanced attitudes from teachers and students. The Linköping model also demonstrates that it is feasible to introduce multidisciplinary education at an early stage in pre-registration curricula. As we shall see in Section 5, it is easier to adduce evidence as to the impact of multidisciplinary education on *attitudes* (towards both patient care and collaborative practice) than it is on outcomes such as improved patient care.

The qualitative data gathered during Phase 2 of the project indicate that many of the course organisers we interviewed were also convinced of the benefits of multidisciplinary education, and that they saw a direct correlation between a satisfactory experience of learning with other professional groups and working together effectively as a team. The net result was perceived to be a reduction in the duplication of service provision:

> *The literature and the seminars I've been to at CAIPE ... all seem to advocate that the sooner you start shared learning to break down stereotypical attitudes, and to develop interpersonal skills, communication skills, teamworking skills, that this should begin as soon as possible.* (UG/Pre-reg course organiser)

> *I hope that they [the students] take on board the perception ... that by working as groups in college it is easier to work in teams in departments.*
> (UG/Pre-reg course organiser)

> *... it's important because we're working together and the work environment is commonly multidisciplinary. So therefore shouldn't our postgraduate education also be on a multidisciplinary basis?* (PG/Post-reg course organiser)

> *I think it is important that students get that concept of working in teams and that they will always work in teams, passing information backwards and forwards to other agencies such as social services, and so it is important to inculcate this into their learning and development.*
> (UG/Pre-reg course organiser)

> *I do think that there has been an awful lot of waste of time and effort in health care so far because I'm sure you and I ... can think of all sorts of times when treatment's been covered by more than one person and it's been duplicated.*
> (PG Post-reg course organiser)

The new emphasis on skills and competences which cut across existing professional boundaries, which has found its ultimate expression in the development of National Occupational Standards for health care professionals (NVQs and SVQs), has lent further impetus to the development of a 'seamless' service (cf Hevey, 1992; Barr, 1994; Mathias & Thompson, 1997).

These developments are occurring at a time when '[t]here seems no limit to our ability to 'consume' health care' (Mackay, Soothill and Webb, 1995, p 6). Increasing demands on the service, linked in part to a greater 'client-centredness', a rise in patients' expectations, and the particular demands of an ageing population, have further fuelled attempts to deploy resources more effectively. Many such

initiatives have focused on the division of labour between different occupational and professional groups. One example from primary care is the suggestion that

> some current GP workload could be managed differently through initiatives such as nurse practitioners ... and patient triage at the first point of contact.

It would, however, be misleading to suggest that health and social care professionals have universally welcomed the gradual breaking down of professional boundaries which has followed in the wake of changes in patterns of health care delivery. The interview data gathered in the course of this project indicate that some health professionals consider that the pace of change in the NHS, and the development of new working practices pose a threat to their professional autonomy.

In some cases, this has in led to a degree of re-entrenchment and 'boundaryism' and a degree of confusion about what terms such as 'multidisciplinary' and 'interprofessional' mean (see Section 4). This does little to foster the principles and practices of multidisciplinary education. As the following quotation makes clear, there are negative as well as positive dimensions to the evolving context of health care delivery and its impact upon multidisciplinary education and practice:

> *... the workplace is changing ... the word 'interprofessional' ... no longer has much meaning ... all these words have come to mean something and nothing to everybody, and they're thrown about ... that's actually what's happening in the workplace ... because there are pressures from different directions to require ... organisations to work together ... to cut costs ... people are being moved and shunted from A to B ... people who have been trained as doctors and nurses and social workers are having to assume new roles as the purchaser/provider split moves and modifies into new formations, and so in a way the professional base begins to lose its meaning.* (PG/Post-reg course organiser)

As we shall discover when we look at the interview data in more detail, there is a very fine line between 'assuming new roles' and 'being shunted about'.

2.3 Changes in the way health professionals are educated

It is clear that recent changes in the way in which health professionals are educated have also had an impact upon the development of multidisciplinary education and practice. The renewed emphasis on skills and competences referred to above is associated with attempts to '[bridge] academic, vocational and interdisciplinary training and education.' (Mathias & Thompson, 1997, p106) in a way that 'can lead to greater interprofessional and interdisciplinary perspectives within qualifications' (p 109). Similarly, the introduction of problem-based learning into revised medical curricula represents another attempt to bridge the gap between the development of skills, competences and the knowledge base.

The integration of nursing education and that of the Professions Allied to Medicine (PAMs) into the higher education sector is another development which has an impact upon the development of multidisciplinary educational provision in

health care. The movement into higher education has, in the words of a focus group participant, encouraged nurses to

> *professionalise themselves in a way that's analogous with the medical profession. So nursing research is becoming a marker of status and professionalism.*

We note that this runs counter to much of the rhetoric about dismantling professional boundaries. Another focus group participant, working in medical education, gave a cogent exposition of some powerful institutional inhibitors to the development of what he termed an 'integrated pattern of learning':

> *I work in a university that prides itself in educating people in a research environment. And research is discipline-based, research is what some heads of department in disciplines would say, rejuvenates the practitioner and keeps the field moving forward. Professionalism doesn't do that. Practitioners don't do that. Researchers within disciplines do that. And that's where the tension lies because we could move our students into an integrated pattern of learning quite simply, but the research base wouldn't let us do that.*

In addition, the Research Assessment Exercise (RAE) as currently conducted is perceived to 'discourage interdisciplinary research and leave boundary issues unresolved.'[4]

As we shall see when we examine the qualitative interview data, economic factors within and outwith the higher education system exert pressures at various points in the system. One interviewee (an MSc course organiser) drew our attention to

> *the changing attitude of people who fund the students ... things have begun to change, it's increasingly difficult for students to get funding ... to go on courses. Interprofessional education was seen as a higher risk ... students were more likely to follow a very conservative strategy with their professional development, which meant going back to a uniprofessional background.*

The same respondent also commented upon what he considered 'an inflation in ... the credit worthiness of qualifications.' This, in his view, increased the 'pressure on students to get their qualifications in the quickest, least complicated way as possible, and that usually means a simple, uniprofessional approach'. Within the higher education sector, the pressure to attract and retain greater numbers of students is also a powerful determinant of the shape and purpose of courses for health professionals at both pre- and post-registration level. This can work for the principles and practice of multidisciplinary education. However, it can also work against it.

2.4 Rationale for the current study

The literature review revealed a number of previous evaluations of educational initiatives involving the health and social care professions. Several of these, notably Jones (1986), Leathard (1992), Carpenter (1995a), MacLeod & Nash (1994), Forman, Jones & Morley (1994), Bisits & Haertsch (1994) Hilton, Morris & Wright (1995), Greene, Cavell & Jackson (1996), Pryce and Reeves (1997) have focused on individual educational initiatives located in institutions; in several instances, the authors were closely associated with the host institution. For example, Jones (1986) evaluated a multidisciplinary programme at Exeter

University's Department of General Practice, which subsequently included an MSc for GPs and allied health professions; Leathard (1992) describes the development and initial outcome of an MSc in Interprofessional Health and Welfare Studies in her home institution; Forman, Jones & Morley (1994) and Hilton, Morris & Wright (1995) report on initiatives in the School of Health and Community Studies at the University of Derby and in the School of Life, Basic Medical and Health Sciences at King's College, London, their respective 'home' institutions. Although Mackay's study of working and co-operating in hospital practice involved qualitative interviews in five sites, these were hospital-based, as the title of her study suggests (Mackay 1992; Walby *et al* 1994).

The current study differs in several important respects from the ones outlined above. Firstly, it was commissioned as an independent study. Secondly, it explores a *range* of multidisciplinary provision, encompassing examples of initiatives at pre- and post-registration levels spread over ten sites, based in higher education institutions. Thirdly, it includes four examples of work-based learning involving several health professions. Finally, it includes a discussion of the use of terminology grounded in a close scrutiny of the literature and drawing upon qualitative data collected in the course of the study.

2.5 Summary

The main features of the context in which multidisciplinary education has developed are as follows:

- there appears to be increasing integration of health and social policy, practice and 'client-centred' service delivery
- there is an increasing emphasis on teamwork and collaborative practice in health care
- there is an increasing focus on overlapping skills and competences
- multidisciplinary education is perceived to facilitate 'seamless' service delivery
- the integration of nursing and the professions allied to medicine into higher education suggests the rise of a new professional culture amongst those groups
- student recruitment is considered to be an important determinant of the design and content of HE courses.

Notes

1 *In the Patient's Interest. Multi-Professional Working Across Organisational Boundaries*. A Report by the Standing Medical and Nursing & Midwifery Advisory Committees, 1996, p 16.
2 *Promoting Collaborative Practice*. Joint Statement by the Councils of the College of Occupational Therapists, Chartered Society of Physiotherapy, College of Speech and Language Therapists, nd.
3 The Future Healthcare Workforce. Report of the Project Steering Group (1996), p 8.
4 *The Future of Funded Research in Scottish Education*. Report of a Scottish Educational Research Association (SERA) Seminar, March 17 1997, p 24. (Unpublished)

3: Methodology

3.1 Phase 1: the survey

3.1.1 Introduction

The main purpose of the survey was to enable us to select sites in which to conduct the qualitative interviews in Phase 2. The survey process is described in greater detail in Appendix 1.

It was agreed with the Project Advisory Group that we would identify initiatives in multidisciplinary education which met the following criteria: namely, that they

- involved at least two health care professions
- involved those working in primary care or hospital-based settings
- were either at pre-or post-registration level
- were of at least 20 days duration
- could be either accredited or unaccredited
- were geographically dispersed
- had been in existence for a minimum of two years.

Clearly any decision as to which professional or occupational groups to include is to some extent arbitrary. We agreed that the field of enquiry be limited to the following professions:

- medicine
- nursing
- midwifery
- occupational therapy
- physiotherapy
- diagnostic radiography

3.1.2 Outcome

The database of multidisciplinary initiatives (177 entries) meeting the criteria outlined above can be summarised as follows:

- *geographical location*

England	146
Scotland	16
Wales	13
Northern Ireland	1
Channel Islands	1

- *level*

Postgraduate/post-registration level	117
Undergraduate/pre-registration level	47
Unspecified	13

• *sector*	
Universities	134
Further education colleges	16
Health Authorities	11
Hospitals	10
Other centres	6

3.1.3 Commentary

As the above table makes clear, multidisciplinary educational initiatives at postgraduate/post-registration level (117) outnumber those at undergraduate/pre-registration level by more than two to one. The majority of the courses included in the survey are located in higher or further education institutions (150). This is unsurprising, given that one of our selection criterion was course duration (> 20 days). Data provided by the Centre for the Advancement of Interprofessional Education (CAIPE) (see Appendix 1) indicate that shorter initiatives tend to be located in other centres, and take the form of one to two day workshops which may be repeated several times a year, but which attract a different mix of participants on each occasion.

3.2 Phase 2: the interview sites

Phase 2 comprised a total of forty-two individual interviews, five focus groups with course organisers, and ten with students in the HE-based sites.[1] The fieldwork was conducted between January and November 1997.

The institutions were broadly matched in respect of the level of the course (pre- or post-registration), course focus (eg gerontology, 'interprofessional' or 'multiprofessional' studies) and the base disciplines of the students. To complement the data gathered from education providers and students, we added four work-based sites: two A & E units, and two general medical practices, in which we interviewed a range of health care professionals (19 interviews; 1 focus group discussion). The rationale for their inclusion was to illustrate that learning to work together effectively is an iterative process not confined to formal learning opportunities. (See Appendix 2 for an overview.)

In addition, we sought the views of a sample of six purchasers and commissioners — those responsible for education and training in NHS Executives, and in the local consortia, as these will formally assume some of the responsibilities for education and training from April 1998.

The interview topic guides can be found in Appendix 4. They were designed to facilitate wide-ranging discussion, and to allow respondents to share both their experiences and values with the researchers. Interviews were recorded and fully transcribed for subsequent analysis.

We then devised a coding framework (see Appendix 5)[2] — based primarily on the data collected in the higher education institutions, but later amended to take

account of the work-based sites. (See Appendix 1 for a description of the data analysis process.)

3.3 Phase 3: data feedback

The final data gathering phase illustrates clearly the extent to which data gathering and analysis proceed concurrently. The document in Appendix 6a (an expanded and annotated version of our initial coding framework) was circulated to the lead contact in each site, who was invited to comment. Respondents could choose whether to make an individual or a collective response. Their comments are summarised in Appendix 6c.

3.4 Data overview

3.4.1 Undergraduate/pre-registration provision

The data gathered in Phase 2 of the project suggest that provision in the four undergraduate/pre-registration sites (CS1/1, CS1/2, CS2/3, CS2/4) is what we describe as 'multidisciplinary'. Students engaging in multidisciplinary education are perceived to be developing skills which are essentially complementary or overlapping. In these four cases, multidisciplinary provision was introduced at an early stage.

At this level, teaching styles appear to vary considerably, and can include both large-scale didactic variants, as well as interactive, small-group teaching approaches: for example in CS1/2, there were various initiatives including some shared teaching in core modules between nursing students and students from the Professions Allied to Medicine (PAMs) and interactive problem-based shared learning in small groups. The latter initiative involved students from a variety of professional groups (nursing, medicine, and PAMs), all of whom had had some clinical experience. In CS1/1 small mixed groups of medical and nursing students shared a clinical skills teaching facility and shared courses in communication skills and cardio-pulmonary resuscitation (CPR) were being developed for nursing students and medical students in the early stages of their curricula.

Finally, it is worth noting that the process of introducing multidisciplinary education is one of continuing evolution, adaptation and modification.

3.4.2 Postgraduate/post-registration provision

The salient difference between the six examples of postgraduate/post-registration provision included in the study (CS3/5, CS3/6, CS, 4/7, CS4/8, CS5/9, CS5/10) and the undergraduate/pre-registration provision was that all the students had clinical experience to draw on. In addition, there was a mixture of full- and part-time students, which meant some students were combining studying for second degree while continuing their clinical practice. The ratio of full- to part-time students varied between courses and from year to year.

Appendix 3 comprises brief descriptions of the course structure and pattern of multidisciplinary provision in the fourteen sites.

Notes

1 These are grouped in pairs, CS1, CS2 etc. The second number in the sequence, eg CS1/1, CS3/5 refers to the institution (see Appendix 2).

2 As the coding framework is an abbreviated and 'encoded' working document, we suggest that it be read in conjunction with Appendix 6a, an expanded and annotated version which served as the basis for our validation activity.

4: Reflections on terminology

4.1 Introduction

> *... the workplace is changing ... the word 'interprofessional' ... no longer has much meaning ... all these words have come to mean something and nothing to everybody, and they're thrown about ...*
>
> (PG/Post-reg course organiser) (CS5/10)

Changes in patterns of health care delivery have led to a renewed emphasis on collaboration and teamwork between health and social care professionals in the best interests of the patient. Yet it is also apparent that there is some uncertainty as to how such collaborative practice might best be described, and that this confusion can be attributed— at least in part— to the professional re-entrenchment and 'boundaryism' that accompanies rapid change.

In this section we examine the range of terms used to describe various forms of multidisciplinary education and practice. We derive a set of distinctions between the terms 'multidisciplinary' and 'interdisciplinary', drawing upon the preliminary literature review and the focus group meeting set up at the beginning of the project. The group comprised an academic (working in a university education department); a health service manager; representatives from schools of nursing, medicine, and a profession allied to medicine; and a representative from a voluntary organisation. We regard it as significant that one of the first findings of a project set up to evaluate multidisciplinary education in health care should be the extent of the uncertainty surrounding the definition of 'multidisciplinary education'.

4.2 'A terminological quagmire'

There is considerable lack of clarity surrounding the use of such terms as 'multidisciplinary' and 'interdisciplinary'. This may in part explain some of the difficulties we encountered in surveying provision (cf. Pirrie, Wilson and Stead, 1997). Leathard describes the various permutations of prefixes ('multi' and 'inter') and adjectives ('disciplinary' and 'professional') as a 'terminological quagmire' (p 6). Similarly, the interview data collected during Phase 2 also reflects a degree of confusion in respect of the meanings associated with the various terms. There is also the suggestion that some course organisers would welcome clearer definitions. As an MSc course organiser put it:

> *... maybe one of the helpful things you could do would be to say is there any difference [between the terms multi- and interdisciplinary].*
>
> (PG/Post-reg course organiser) (CS4/7)

There are several facets to the distinction between 'inter' and 'multi': numerical, territorial and epistemological. It is these to which we now turn.

4.2.1 Numerical, territorial and epistemological distinctions

In the literature, the difference between 'inter' and 'multi' appears to be largely numerical. 'Inter' initiatives appear to involve two professions only (Carpenter 1995a).[1] If a course involves more than two groups, it becomes 'multi'.[2] Others

consider the difference between 'inter' and 'multi' to be more than just a numbers game: working towards 'interness' involves moving into new territory altogether.

As one focus group participant working in the voluntary sector put it, '... interdisciplinary ... it's like you are crossing into another space ...'. Another (an academic) put the following gloss upon the notion of interdisciplinary endeavour: 'it's like a sort of metadiscipline within which there are disciplinary threads that can be allocated to conventional boxes.'

It is clear that the distinction can be an epistemological one: what can distinguish 'inter' from 'multi' is the development of forms of knowledge which straddle existing professional, occupational or disciplinary boundaries. Nolan (1995) considers such blurring of professional boundaries to be one of the hallmarks of interprofessional care:

> Interdisciplinary care, although not denying the importance of specific skills, seeks to blur the professional boundaries and requires trust, tolerance, and a willingness to share responsibility. (p 306)

In the minds of some focus group participants, 'inter' was strongly associated with the notion of interdependence, of being 'bound together by a shared purpose. One group member expressed this rather graphically: '... so the interness is the teamness of the action?' This has its echoes in the literature. Several authors (for example, Rawson 1994; Goble 1994; Carpenter 1995a, 1995b) consider that some degree of reciprocal influence, and a readiness to embrace a new identity and role, are defining features of 'inter'-learning or working. As Rawson explains:

> the prefix 'inter' denotes relationships both between and among the elements and further implies some notion of reciprocal operations ... 'Multi' implies many and some form of composition but again does not immediately suggest any give and take. (p 40)

Clark (1993) concurs with Rawson and Goble's views of the characteristics of 'multi' initiatives, arguing that 'there is often very little interaction or collaboration' in multidisciplinary working. In addition, the way in which he frames his suggestions for a 'standard non-' demonstrates the origins of the initial impetus for 'multi'-initiatives: a [illegible] emphasis on the needs of patients or groups of patients:

> Programs termed 'multidisciplinary' may be defined as bringing various professions together to understand a particular problem or experience, such as the process of ageing. In this sense, they afford different perspectives on the issue at hand, just as one sees different facets of a crystal by turning it. (p 220)

This is also what lies behind the approach to initial physiotherapy education outlined by Hilton *et al* (1995), where 'the emphasis is on client-centred approaches'. (p 269)[3]

This view was echoed by a member of the focus group who lectured to physiotherapy students:

> *my notion of multidisciplinary is sort of practice-based, and it's based on the objectives, the task that we would have. So hence we've got a member of a*

multidisciplinary team. But operating within that I still have my own professional boundaries. So we can be discrete. It's a question of boundaries.

4.2.2 Integration or complementarity?

Echoing Lynch (1984), Clark (1993) points out that, 'simply "putting people together" in groups representing many disciplines does not necessarily guarantee the development of a shared level of understanding'. (p 218) Early research by McMichael(1984) showed that shared teaching with no opportunity for joint work created bad feeling or 'hostile stereotyping' between different student groups. A subsequent programme which emphasised team working and problem solving was more effective.

In the opinion of one of the course organisers interviewed, interprofessional education was developed 'by amalgamating different professional groups': the result was that 'you get something that's more than the sum of its parts, you get something different, a metaperspective'. As Clark goes on, [putting people together in groups] 'may simply reinforce the barriers that exist for the very purpose of defining different professions.' (p 218) Like Clark, Jones (1986) argues that interdisciplinary or interprofessional courses enable participants to '... find shared values, increase their liking for each other, and develop new interprofessional perceptions.' The 'communication challenges' referred to by Hilton *et al.* (1995) (p 269) are a far cry from this true integration and merging of perspectives. Indeed one of the objectives of the course described by Hilton was that students should be able to 'demonstrate an understanding of the role of the physiotherapist as a member of the multidisciplinary health care team.' (p 273) Here the emphasis is on developing a greater understanding of one's *own* professional role, rather than on achieving some degree of integration.

By way of illustration: one focus group participant (a nurse educator with a background in social work) described multidisciplinary practice as 'all doing our thing in the same setting.' According to MacLeod & Nash (1994), a multidisciplinary approach to learning in palliative care enables those involved 'to [recognise] the *complementary* skills and resources of different provisions'. (p 283) There is no suggestion here of an integration of approaches, skills or perspectives.

Perhaps it is rather much to expect that people at an early stage in their career can engage in genuine 'inter'-endeavour. At this point they are still developing their own professional identity. And as Wilmot (1995) points out, a truly 'inter-' perspective would appear to demand a greater 'degree of maturity and flexibility with regard to their own knowledge base' (p 259) than is usually possible to achieve in the course of multidisciplinary endeavour. For Wilmot, a readiness on the part of different professional groups to 'engage in shared reflection on their practice' (p 259) is the means by which conflicts of value can be resolved. According to Clark (1993), it is at the interdisciplinary or interprofessional level that 'real integration of perspectives occurs.' (p 220) The defining characteristic of

situations in which 'professionals learn from and about each other' (Casto & Julia, 1994) is, in Clark's view

> ... the kind of cognitive and behavioural change that occurs: participants understand the core principles and concepts of each contributing discipline, and they are familiar with the basic language and mindsets of the various disciplines represented. (p 220)

This is a tall order, particularly if we bear in mind the logistical constraints faced by organisers of 'multidisciplinary education' at the pre-registration stage: notably the fact that many pre-registration courses are independently validated 'and the students taught in a mono-disciplinary way until [the] final year.' (Forman *et al* 1994, p 276; see also Carpenter 1995a, 1995b; Greene, Cavell & Jackson, 1996).

4.2.3 Professional hierarchies

So far we have looked at three of the facets of the distinction between 'inter' and 'multi': the numerical; the territorial; and the epistemological. But there is another, even more significant dimension to the problem. It has to do with status, and the relative positions of different groups in explicit and implicit professional hierarchies. We suggest that these hierarchies are themselves dynamic entities, and respond to both internal and external impetuses for change.

Reflecting on her time in practice, one focus group member (a physiotherapy lecturer) explained how she 'had been a member of a multidisciplinary team, but we didn't operate as a multidisciplinary team.' She attributed this to the high status traditionally enjoyed by the medical profession: 'it tends to be based ... in the very clinical hierarchical and a clinical basis that the doctor usually leads the team.' In her view, an 'inter' perspective was strongly associated with generic skills. She elaborated further:

> *I think the fact that they're generic speaks for itself ... in a professional group, any professional group, they'd be regarded as lower skills because they have a generic element to them. And that person may well be operating interprofessionally.*

It would appear that the exigencies of organising or participating in truly 'inter'-initiatives such as those described above means that 'multi-' is the prefix that covers most of what is on offer. It may be the case that the very notion of a 'seamless service'[4] may preclude the development of an integrated perspective and a shared system of values. A degree of overlap, a broad seam in which there is room for discussion and debate, is perhaps a *sine qua non* for the development of a truly interdisciplinary perspective.

4.2.4 Disciplinary or professional?

Perhaps the most pressing reason for avoiding the word 'professional' is its strong associations with notions of 'tribalism' (cf Becher 1989; and with specific reference to the recent interest in tribalism in the health professions, Beattie 1995). In the context of our current research, we generally use the term 'multidisciplinary' because of what one focus group participant (a health service manager) described as

[perceived] prejudices about what does professionalism mean, and how does that translate into tribalistic behaviour ... I think if you use the multiprofessional term, you're already compartmentalising people into stereotypes and boxes. A lot of the work that I try to do is to try and break down what those stereotypes are.

The sociology of the professions is beyond the scope of the current project. It is sufficient to point out that many writers, among them Clark (1993), use the terms 'disciplinary' and 'professional' interchangeably. In addition, Carpenter and Hewstone (1996) have explored the theoretical aspects of intergroup relations and stereotypical perceptions in medicine and nursing.

4.2.5 Uniqueness and power

Clark's (1993) definition of a 'profession' turns round the notion of a 'unique body of knowledge, types of skills, and modes of conduct' (p 219). Yet in the era of skill-mix, such claims to uniqueness seem rather contentious, particularly when it comes to practice, where, as Mackay (1992) suggests '[being locked] into [a] self-contained world of doctoring or nursing' is inimical to being a good doctor or a good nurse. Yet, as Clark points out, the early phase of unidisciplinary education is where

> new initiates into the professional identity are 'protected' from alien influences that might distract them from fully mastering the principles of professional practice. (p 219)

And it is not just in the early stages of a neophyte's career that the 'unidiscipline' exerts such power. Reviewing the options for medical education, one focus group participant (a senior lecturer in medical education) explained:

we could move our students into an integrated pattern of learning quite simply, but the research base wouldn't let us do that. That's where the core of knowledge is, but that's where the traditions, in terms of the knowledge base, lie. They lie within disciplines. And that's also about power, because getting your research money in is based on the power of your discipline.

The following exchange from the focus group meeting is worth quoting at some length: not only does it illustrate the pervasive confusion about the use of terminology, but it is also a clear illustration of the power of the 'parent' discipline. R1 is a sociologist working in medical education; R2 a physiotherapy lecturer:

R1 One of the things that I think we're trying to think about is that we might have multidisciplinary events, courses, call them what you will at undergraduate level, which are about personal development. So that they actually start to think about themselves as a professional, as themselves, but with people from other professions. So that that would be the focus of the multidisciplinary, interprofessional, whatever you want to call it, teaching at that level.

R2 But you've got to come home and tell your parents that you've been out. I mean it's fine being out ... you know, it might sometimes be easier in a multidisciplinary or a multiprofessional group, but the home-base group can be very powerful to come back into ... [you] have not played the rules, you know.

This exchange is illuminating for several reasons. Firstly, R1 sees the personal and social domain as being an ideal focus for 'multidisciplinary, interprofessional, whatever you want to call it, teaching'. Secondly, R2 gives the distinct impression

that multidisciplinary endeavour is like 'not playing by the rules'. Thirdly, the image of a domineering parent is a powerful one: home may be where the heart is; it certainly is where the power base lies. The notion of operating within different (and potentially competing) sets of rules is interesting. What effects might this have on participants? Might one set of rules be contaminated by the other? Is there the potential for creating cynical game players?

4.3 Summary

We should like to conclude our reflections on terminology by presenting a set of working definitions of multi- and interdisciplinary education. In one sense these definitions are not mutually exclusive – they reflect a continuum of course objectives. The emphasis may vary along the continuum depending on the subject matter and the stage of the course. The evidence from the literature and the focus group discussion would suggest that the prefix 'multi' describes initiatives which

- bring more than two groups together to understand a particular aspect of their practice
- focus on the complementarity of procedures and perspectives
- provide opportunities to learn about each other
- stem from an increased emphasis on the clients' needs
- develop participants' understanding of their role in the health care team

'Inter' initiatives, on the other hand, appear to enable those involved to

- develop new interprofessional perspectives
- *integrate* procedures and perspectives on behalf of clients
- learn *from* and *about* each other
- reflect critically on their knowledge base
- engage in shared reflection on practice
- surrender some aspects of their professional role
- share knowledge
- develop a common level of understanding

Notes

1 But compare the following definition: 'multidisciplinary indicates the involvement of many professionals and others. ... Interdisciplinary refers to the working together of the professional groups within this document.' (*Promoting Collaborative Practice* (nd) Joint Statement by the Councils of the College of Occupational Therapists, Chartered Society of Physiotherapy, College of Speech and Language Therapists).

2 Multiprofessional' is the term used by the World Health Organisation (1988). It is widely used in continental Europe to describe initiatives involving three or more professions. 'Interprofessional' is used far less often and reserved for initiatives involving only two professions.

3 Hilton *et al* (1995) and Hilton (1995) use the terms 'interdisciplinary', 'multidisciplinary' and 'interprofessional' interchangeably.

4 Department of Health (1996) *The National Health Service: A Service with Ambitions*. The Stationery Office, London, p 28.

5: Perceptions of multidisciplinary education and practice

5.1 Introduction

The personal experiences of staff, students and health care professionals are crucial in evaluating multidisciplinary education. The following discussion focuses on respondents' perceptions of the effectiveness of current provision (however structured) in terms of the level of delivery (pre- or post-registration) and its impact upon the following areas: communication; mutual understanding between professions; personal and professional confidence; impact upon on practice. These were the common themes which recurred in the transcript evidence. In Sections 5.2 and 5.3, we focus on the evidence from the ten HE-based sites. In 5.4 and 5.5, we examine the data collected in the four work-based sites (two general medical practices and two A & E units).

An evidence-based evaluation of effectiveness is beyond the scope of this study. Indeed we doubt whether the effectiveness of multidisciplinary education can be measured satisfactorily through evidence-based research because the effects of multidisciplinary education on patient care are not tangible and easily quantifiable.

5.2 Pre- and post-registration provision

5.2.1 Evidence from the undergraduate/pre-registration sites

One of the main issues of multidisciplinary provision appears to be the stage at which it is included, rather than any debate about its intrinsic advantages or disadvantages. Is it perceived to be more effective at pre- or post-registration level, and, if included in undergraduate courses, at what point in the curriculum? There were fewer pre-registration courses than post-registration courses included in Phase 2, reflecting the balance which was found in the data survey stage.

The issues of stage and level are complex, and dependent on a range of other factors, including course organisation and development; type of course; the subject or topic being taught; teaching style; students' expectations; and range of participants.

In CS1/2, extensive course reorganisation and development was underway; several PAMs courses were coming up for re-validation, and the medical curriculum was being revised. This may explain the fact that the course organisers in this site had mixed views about the appropriate time to introduce multidisciplinary education:

> *You really need to be doing problem-solving together, and I think that you can't really get that by-product until someone has a relatedness to the discipline that they're going to join. ... it's more productive [at post-registration] level, because people do come with fairly entrenched views about what their professional role is, and sometimes you see a flicker of enlightenment*

when they grasp that someone else is also interested in these issues ... the stereotypes that one comes with are quite often turned round.
(UG/Pre-reg course organiser) (Nursing) (CS1/2)

... I have reservations about how extensively it should be used at an undergraduate level, I have no qualms at all that all post-registration work apart from anything profession-specific ... should be multidisciplinary. ... People say well just give them a common year, and then send them off into a profession. I think we're a long way from being able to do that because ... the people coming into the course choose to come to physiotherapy and want to be physiotherapists ... they think 'what's this got to do with me?'
(UG/Pre-reg course organiser) (Physiotherapy) (CS1/2)

Feedback from medical, nursing and PAMs students who had participated in the pilot phase of a two-day interactive shared learning workshop in the same institution also considered it important to form their own professional identities in order to reap the maximum benefit from interactive 'shared' learning. As the course organiser explained:

On this course ... we wanted to start at the bottom, in Year 1, but certainly the kind of students who were on the course in the last year, they were fifth year medics, but there were fourth year nurses and third year PAMs, but ... it worked very very well. ... by the time they've got to that stage anyway, they were re-balanced as far as experience and maturity go ... However, ... [the students] ... all felt that they wanted to establish a professional identity first. The best time, the students felt, was after they have had some clinical experience.
(UG/Pre-reg course organiser) (CS1/2)

In the other two undergraduate sites (CS2/3 and CS2/4), an element of multidisciplinary provision was introduced early on in the undergraduate courses. A member of staff in CS2/3 expressed support for the introduction of multidisciplinary education in the first year:

I think it's the right thing to give them exposure to other disciplines very early on, so that they can start making a more informed decision about their relationships. (UG/Pre-reg course organiser) (CS2/3)

In two sites, those who favoured multidisciplinary education being included at pre-registration level also recognised that there were benefits to organising shared modules later in the course:

I was saying earlier about the stereotypical viewpoint or the misconceptions about what you should be studying when you are learning to be a nurse and we are thinking we need to address that to some extent perhaps in the new degree perhaps by increasing the amount of time they have as a nursing group in that first year and looking at perhaps trying to thread shared learning through the degree and not have this big bulk of it at the beginning I think that is causing some problems, not massive ones, but things that we think can be improved around that. ... It's not a problem of the shared learning per se, but is a problem of how we've got it in our programme at the moment.
(UG/Pre-reg course organiser) (CS2/3)

Unfortunately the way we designed the degree course most of the shared learning is in the first semester of the first year with a little in the second and third years; one module in the second year which is practitioner research which seems to be OK for shared learning, and in the third year there are two modules. ... Now the way we are thinking at the moment is that we might get more mileage out of shared learning if we move some of the first year modules into the late second, early third year when the students have more of a professional identity. (UG/Pre-reg course organiser) (CS2/4)

These views were echoed by the students we interviewed in the above site, one of whom commented that:

> *If we'd had a term just in our professional group and then had an interdisciplinary learning bit, that would have been better, because then you ... would feel established in yourself.* (UG/Pre-reg student) (CS2/4)

The undergraduate/pre-registration sites reflect a balance of views towards the introduction of multidisciplinary elements or modules into undergraduate/pre-registration courses at a later rather than initial stage. The evidence from one undergraduate/pre-registration site (CS1/1) suggests that topics like Communication Skills or Clinical Skills are more suited than others to a multidisciplinary approach.

5.2.2 Evidence from the postgraduate/post-registration sites

The respondents who were involved with postgraduate/post-registration courses were clear on the rationale for the multidisciplinary approach. On balance, they favoured introduction later in the pre-registration curriculum, or at postgraduate/post-registration level. Several also expressed the view that there should be opportunities to share some core subjects with some professions at undergraduate level:

> *It's important to get people to feel secure in the knowledge and competencies of their own profession, but try to do that in a way which gives them a sense of other professions and what they can do and how they can work together. This has to be built into the initial qualifying period. That does mean that some part of training is being done on a uniprofessional basis but there are big chunks when it is not. Clinical placements provide a very important part of training and it's important to set objectives for clinical placements that include finding out how the rest of the system and other professions work.*
> (PG/Post-reg course organiser) (CS3/5)

> *I think there could be some real benefits with some sorts of core programmes both at undergraduate and postgraduate education. ...*
> (PG/Post-reg course organiser) (CS3/6)

Some respondents in the post-registration sites agreed with the views expressed by their colleagues' in the pre-registration sites: namely, that multidisciplinary education is more effective at postgraduate level:

> *At undergraduate level it's a much more contained approach ... where two different student backgrounds come together ... but there are considerable problems at this level, students lack confidence ... Students at PG level can feel strengthened in their position, but that doesn't happen at UG level, because they're not qualified yet and they lack confidence.*
> (PG/Post-reg course organiser) (CS5/10)

> *If you are on a multidisciplinary course you are mature and you know where you're coming from. You have been in your profession for many years and you know what you're doing. I think it would be a mistake to be 'fresh' from any discipline and come on a multidisciplinary course before they have had the experience of their own discipline. The more mature you are the more you can reflect and take on others peoples' backgrounds.*
> (PG/Post-reg student) (CS4/8)

On balance, respondents in the postgraduate/post-registration sites perceived multidisciplinary education to be more effective once the students have had a

chance to form their own secure professional identities. However, it was perceived to have its place in pre-registration courses provided that the format is appropriate and that logistical and other practical issues are addressed. These issues are explored later in the report.

5.3 Perceived impact of multidisciplinary education

Multidisciplinary education was perceived by respondents in both the pre- and post-registration sites to have an impact on a range of other aspects of professional experience and practice. These can be identified under the following headings:

- communication;
- mutual understanding between professions;
- confidence in role;
- impact on practice.

5.3.1 Communication

Respondents in all sites believe multidisciplinary education promotes communication, and perhaps collaboration. There are several strands to this. Firstly, there is the sharing of experiences among different health groups, whether this be at undergraduate level in shared modules, group work at postgraduate level, or in the work place. Course organisers in two sites (pre- and post-registration) commented on student feedback:

> *One comment was that it was good to be in a seminar where in a sense they were all equal, and I think there was quite a lot of swapping of experiences...*
> (PG/Post-reg course organiser) (CS3/5)

> *It was actually the help from the others within the group that enabled them to sort of think more broadly in terms of their role in communications and its role in health provisions.* (UG/Pre-reg course organiser) (CS2/3)

The comment from one student on improved communication is typical of those interviewed:

> *Yes, I think there's more networking and it helps people realise that they're in the same boat.* (PG/Post-reg student) (CS3/5)

The key element of this networking was its supportive nature as much as professional networking or liaison. Students valued the 'networks of support' that they were able to build up, often in an informal context (university residences). In one case, this support network continued after the end of the multidisciplinary element:

> *A group of us who got on well have planned to have regular meetings, without our facilitator, because we found it was supportive.*
> (PG/Post-reg student) (CS3/5)

> *... it's encouraged all kinds of other areas of sharing rather than just teaching.*
> (UG/Pre-reg course organiser) (CS2/3)

Improved communication, through mixing with people with differing views and experiences, was seen as an important outcome of 'learning together', however that learning experience may have been structured. Respondents also recognised improved communication as being a necessary adjunct to improving standards in

health care. However, where this network of support fell down was at undergraduate level. For example, some students in CS2/4 reported difficulties in maintaining multidisciplinary 'rapport'. Evidence from students at this institution reveals that improved communication was transient and temporary, only being achieved during the shared learning module and breaking down again when students went on to pursue uniprofessional parts of the course.

In summary, multidisciplinary education is perceived to promote effective communication by providing:

- shared experiences among different health groups
- networks and support groups

5.3.2 Mutual understanding between professions

Communication is only one aspect of multidisciplinary interaction. Does multidisciplinary education dismantle or reinforce professional boundaries and does it promote or inhibit mutual understanding between professions? The following quotations illustrate the need to understand differing professional roles. One recurring theme in the transcript evidence from both pre- and post-registration sites is the awareness of 'breaking down barriers', and an 'appreciation of strengths and weaknesses'. There is an awareness of a ground swell of change but also that there are limiting factors determined by the willingness of others to co-operate, acknowledge different roles and effect change. In addition, there is the recognition that individual professions may not hold a monopoly of the knowledge base.

Course organisers expressed their expectations of the potential benefits of multidisciplinary courses to students in fairly predictable terms:

> *I think you can only help identify, acknowledge and articulate your own role by comparison with others, but also it gives you that professional confidence within it as well, for me. ... And it's to do with culture.*
>
> (UG/Pre-reg course organiser) (CS2/3)

> *Most people appreciate it's good to look at things from a multidisciplinary viewpoint ... it's good to break down barriers and good to get rid of the preconceptions.* (PG/Post-reg course organiser) (Nursing) (CS3/5)

> *They are beginning to understand, I think, that all the different professional groups have a different starting point, not only a different knowledge base and a different skill base ... but a different philosophy.*
>
> (PG/Post-reg course organiser) (CS5/9)

Some postgraduate students felt 'more positive' about their own professional practice, but they were also aware of their differing perspectives on it:

> *And it doesn't matter who they are, whether they're professional managers, anybody, they're all in their own corner looking at their own corner very hard and not seeing anything outside it. And I think one of the points of a course like this is that you've got a lot of people who've been in corners, and all of us have been in corners of one sort or another looking at our own particular view, and it's making us all look outside, taking other peoples' views into account.*
>
> (PG/Post-reg student) (CS3/5)

At undergraduate level, there seem to have been particular difficulties in case study CS2/4 where multidisciplinary provision was introduced at an early stage. Students had a limited understanding of how the multidisciplinary element might enhance their ability to collaborate with different professional groups:

> *... when you say shared learning, I mean I haven't learned anything about occupational therapy or radiography. I know the basics of what they do, but I haven't learned what those professions are, the same as I probably haven't learned what nursing is about. It's not a case of shared learning, it's different people learning.* (UG/Pre-reg student) (CS2/4)

> *They said at the start of the course that we'd get more perception of what other people's professions involved. I never found that at all, because you were put into a group to produce a seminar at the end of it ... it didn't involve nursing procedure or occupational therapy or radiography, it was just like ten people together to produce an outcome.* (UG/Pre-reg student) (CS2/4)

Professional hierarchies and feelings of domination by other professions in tutorials also provoked a strong reaction within this particular institution. The course organisers' view on these course difficulties in terms of professional understanding was a more objective

> *I think some of it's about professional identity that they feel that they came to be nurses and they want to be on something that is clearly defined as a nursing course. This links up with the stereotypical viewpoint or the misconceptions about what you should be studying when you are learning to be a nurse.* (UG/Pre-reg course organiser) (CS2/4)

> *... we had the nurses and radiographers separate for a bit then we brought them together and it was going well till we brought them together then it just completely fell down because the radiographers are essentially a uni disciplinary group. They tend to work within relatively closed environments in terms of their departments whereas OTs are very much team workers and multiagency.* (UG/Pre-reg course organiser) (CS2/4)

These comments provide an indication of inherent problems with introducing multidisciplinary education too early in training.

Within these issues of professional boundaries therefore one can identify the following potential outcomes:

- greater understanding of roles
- less intolerance
- enhanced professional knowledge

5.3.3 Confidence

The transcript evidence suggests that to a large extent multidisciplinary education does enhance professional and personal confidence, although less so at undergraduate level. Students felt able to communicate better intra-professionally, as well with other professional groups. They felt 'safe' in mixed professional groups. This enabled them further to develop and extend their knowledge base which they could then apply to practice:

> *So I would say their enthusiasm hopefully increases and certainly their ability to argue and reason increases. And getting to know the literature more, I think they're not so afraid of searching and finding papers.* (PG/Post-reg course organiser) (CS3/5)

... and it gives them a lot more confidence to talk about issues ... From the purely academic angle, they ... are interested to know that they can study another discipline and enjoy it and do well in it, because often people are pigeonholed into being a physiologist or a sociologist as we tend to talk about ourselves. ... Part of the confidence comes from coming back to study again, and achieving that goal, and I think that might be true of many courses that attract mature students ... (PG/Post-reg course organiser) (CS4/7)

The final sentence of the above quotation illustrates that many of the benefits attributed to multidisciplinary provision at post-registration level are not specific to such courses.

The experience of a multidisciplinary course may increase the individual's commitment, enhance their credibility in their colleagues' eyes and enable them to adopt a more critical approach. If anything, professional identity and boundaries may be strengthened:

The strange paradox for people who don't really understand this, is that it actually makes their original position stronger, they have a stronger sense of their original identity, they don't lose their identity in becoming interprofessional. Quite the opposite ... what it [education] actually does is empower people's professional perspectives and make some real changes ...
(PG/Post-reg course organiser) (CS5/10)

The postgraduate students' view is a positive and reflective one. They felt able to respect each other's viewpoints:

It's made me more dynamic and I think about things - and I do look forward and think of ways to make the service better. (PG/post-reg student) (CS4/8)

You're also going to have a bit more confidence to be able to speak out, because you know you've got that knowledge base, whereas before you might have said the same thing but wouldn't have been so confident in yourself.
(PG/post-reg student) (CS4/7)

I think when you've got the MSc, what you take back is increased credibility ... I deal all the time with people who are highly trained, also extremely self opinionated, and I have to try and change the way they think about things.
(PG/post-reg student) (CS3/5)

However, there were some comments which hinted that the feeling of being able to initiate change may have been hindered by the indifference of colleagues and lack of support when they returned to their workplace/practice situation. As far as the undergraduate students were concerned, without clinical experience to draw on, or a clear sense of their own professional identity, their capacity to comment objectively upon the perceived benefits or indeed limitations of multidisciplinary education was restricted.

In sum, confidence within roles was a perceived outcome of multidisciplinary education which contributed towards:

- learning beyond boundaries, enhancing knowledge and increasing skills
- developing a critical approach
- being confident in talking to other professionals
- being more self-assured of ability and professional identity

These were of direct relevance to postgraduate/post-registration respondents, but less articulated at undergraduate/pre-registration level.

5.3.4 Impact on practice

The evidence suggests that postgraduate students consider that participating in multidisciplinary education informs practice by allowing them to reflect on their clinical experience. This then encourages them to change their practice or to initiate change. Undergraduate students, on the other hand, have not yet had time to begin to develop their own professional role. Nor have they been sufficiently exposed to clinical practice to envisage how they might draw upon the multidisciplinary experience within the workplace.

Postgraduate students gained some useful insights which determined their way of working. They often saw their multidisciplinary experience as beneficial to their organisation as well as to themselves:

> *For me it hasn't changed the range of people and it hasn't changed the context within which you deal with these people ... but it certainly has changed how you deal with them.* (PG/post-reg student) (CS4/7)

> *I like the fact that this course is practice-based - we learn things, we get time to do the reading and we get the chance to go back and implement this in our working practice.* (PG/post-reg student) (CS3/6)

> *..students often took advantage of that opportunity to make their research a tool for innovation and changes in their practice as well.*
> (PG/Post-reg course organiser) (CS5/10)

> *... the fact that the organisation can actually benefit as well as myself, you can fit things into the work situation. Everybody is gaining something.*
> (PG/Post-reg student) (CS5/9)

Respondents in one institution were particularly articulate with regard to how they saw the beneficial effects of their postgraduate learning:

> *I feel that doing this has helped me identify the negative aspects, or the negative moves as well as the positive moves, that we've made, and given me an idea about where we need to be moving towards. I suppose in my role as an agent of change. And getting into a position where one can actually influence change working in the multidisciplinary team.*
> (PG/Post-reg course organiser) (CS3/5)

> *The assignments I've done have been directly linked to the work I do. Just going through the literature search on a particular subject has made me inform myself but also share that with my colleagues.*(PG/Post-reg student) (CS3/5)

However, in other sites, there were some reservations expressed about the whole direction of multidisciplinary education regarding the environment of the workplace:

> *And I think in one sense we're moving backwards because we're putting more power into the hands of certain key professionals, generally medical practitioners, and away from the multidisciplinary team. Whereas working here is actually working in the opposite direction, the emphasis is on multi, or interdisciplinary working rather than having a hierarchy with a demi-god at the top.*
>
> *And I think what we're losing is the facilitation of professionals to work together. I think people used to work together more comfortably than they do now, at an interpersonal level and in terms of setting objectives. I think there's so much pressure on people nowadays that in fact a lot of people are leaving ... they're unhappy with the structure, the hierarchy. It's not about having people*

not in the same professions telling them what to do, it's more about the feeling that people are in management positions and they really don't have an idea of how to develop and facilitate the organisation in which they're working.
(PG/post-reg student) (CS3/5)

The response of colleagues was also a determining factor:

I think it ranges from interest and some support in terms of practical issues to complete indifference. (PG/post-reg student) (CS4/7)

... a complete lack of understanding as to why you want to go and do something more academic in the first place. (PG/post-reg student) (CS4/7)

In sum, the experience of multidisciplinary education appears to provide the opportunity to:

- apply research and knowledge to clinical practice
- encourage the sharing of knowledge with colleagues
- become more informed practitioners
- enhance mutual understanding and promote collaborative practice.

5.4 Working together, learning together in general practice

In the two general practice sites (CS7/13 and CS7/14) there was a perception that all members of staff needed to be able to work more cohesively in order to respond effectively to local needs. This mirrors the evidence from the higher-education based case studies, which suggests that there is a perception that current patterns of health care delivery make effective teamwork essential.

Practice CS7/14 was located in an area of multiple social deprivation which presented particular public health problems: for example, a high rate of unplanned teenage pregnancies. The practice leadership was endeavouring to 'get ownership' of the health care team. In one GP's opinion, such attempts were partly vitiated by fundholding arrangements, which she described as follows: 'we're all tangled up with the [local] Health Care Trust ... they manage the property ... they manage the nurses. ... It's medieval.' The newly-appointed practice manager (formerly a nurse) had been brought in specifically to address 'a general concern of the GPs about communication.' He had instigated informal meetings for all clinical and clerical staff on a weekly basis. He explained the rationale for this as follows:

But in terms of multidisciplinary working ... I think there is a lot of lip-service too. We're famous for meeting people in corridors and saying by the way I saw so-and-so today. ... So I just maybe thought ... I'd try to build up a forum in which people feel safe. (Practice manager) (CS7/14)

A 'nurse consultant' had been appointed with the specific longer-term aim of dismantling some of the more restrictive working practices which were compromising the targeted team effort of the practice. As a GP explained:

She's if you like a seedling ... I wouldn't say this perhaps out of this room, but the whole idea is to try and upskill the others, and change one or two rather, rigid ways of thinking. She does immunisations, the other health visitors will not do immunisations. This absolutely infuriates me, they will sit in the room and wait for me to finish off a baby clinic, pulling up syringes and sticking them in babies and all the rest of it, while they're just sitting there filling in their laptop computers. (GP) (CS7/14)

The nurse consultant's responsibilities included managing a minor ailments clinic and taking a lead on various health promotion initiatives within the practice.

The manager of Practice CS7/13 also considered 'having consistency with the members of staff ... important'. A practice nurse considered that one positive outcome of attempts to foster more cohesive working practices had been that

> *GPs are at last recognising that nurses have a lot of skills, and that receptionists have a lot of skills ... and it is recognising everybody's individual skills. ... We have to know what everybody else's job is about.*
>
> (Practice nurse) (CS7/14)

The one GP interviewed also considered that the practice-based initiative had had the effect of giving her colleagues 'some insight into what our job's like ... having an insight into what someone else does maybe helps you use them more effectively.' (GP) (CS7/14)

5.5 Working together, learning together in A & E

In the two A & E Departments (CS6/11 and CS6/12), multidisciplinary educational initiatives (specifically the Advanced Trauma Life Support (ATLS) and Advanced Trauma Nursing Course (ATNC)[1] had been introduced to support and further develop established teamworking practice in acute clinical situations:

> *... in those areas which are very clinical and very practical ... on the shop floor, if you like, the various groups are expected to work together, and medical students would have to be blind not to see that doctors and nurses do work together, and may be therefore confused as to why they don't learn together.*
>
> (Consultant) (CS6/11)

> *Because all the nursing staff here have done ATLS and we all work on the same system, almost invariably when we have a major trauma resuscitation everything comes to hand. The nursing staff are there thinking of the same things as you're thinking of ... I would say our Advanced Trauma Life Support has a very strong implication there because it means that we all speak the same language ...*
>
> (Registrar) (CS6/12)

Evidence which had emerged from a study conducted by the Royal College of Surgeons (London) in 1988 had, in the opinion of one respondent, added further impetus and renewed urgency to these developments. As an ATNC course co-ordinator explained:

> *[the study] had discovered something that we had been concerned about for a number of years, and that was that patients who sustain major injuries, and remember that a significant proportion of those are patients who are under 35, were coming in and we did our best, we were absolutely committed ... but a significant proportion were dying unnecessarily ... 20%, if not as much as 30% of those patients, out of a study of 1000 trauma deaths, died unnecessarily, and not just patients who would have been in a persistent vegetative state...*
>
> (Course co-ordinator) (CS6/11)

An impassioned advocate of equity in medical and nursing education, the same course co-ordinator explained her belief that 'medicine is not either the most important nor the lead in terms of patient care, and that nurses need to be getting trained too.' Even highly trained and committed professionals cannot 'function together under massive pressure' at an optimum level:

... we can't just chuck them in and say get on with it, even if they've got the technical knowledge, that's not enough ... terrible things go wrong ... and there are very interesting cultures around in the NHS in terms of blame and looking for scapegoats that mean that working under pressure people actually don't pull together, they do the opposite ... (Course co-ordinator) (CS6/11)

In the course co-ordinator's view, the impact of the ATLS/ATN courses extended beyond the domain of clinical competence and the facilitation of rapid and appropriate response under pressure. It had effected pervasive changes in the culture of the workplace and enhanced nurses' assertiveness skills. In short, 'people have been forced to acknowledge each other's contribution, and to stop being territorial and to see things in a much wider way.' (Course co-ordinator) (CS6/11).

5.6 Perceived impact upon practice

In both the A & E and general practice sites, mutual understanding of roles is vital where effective clinical practice may be dependent on good working relationships and understanding of roles. For example, in the A & E departments effective teamwork is perceived as essential for ensuring good patient outcomes:

I think it's good that the nursing staff facilitates education for the medical staff and the medical staff facilitates some education for the nursing staff, because I think there are things to be gained in both directions.(Nurse manager) (CS6/12)

..the doctor's view of you changes and the increased communication that comes from it is massive, it really is, it's so much better. (ATNC nurse) (CS6/11)

The joint protocols, which were a feature of the A & E sites, were perceived to facilitate better understanding between doctors and other members of staff.

Improved communication was perceived to play an important role in improving working relationships and facilitating both formal and informal teamwork. The following comment from the general practice perspective, clearly illustrates this:

I think it's very, very important that we have a good working relationship with the GPs, that we feel that we can go and ask them questions, and ... 10 years ago when I started, GPs were never called by their Christian names, they were Dr so and so ... we never had coffee. ... It's now all Christian names, and whoever gets to the sink first makes the coffee, whether the GP or receptionist or whoever, and everybody works on the same level, really. ... The handmaiden syndrome has gone! (Practice nurse) (CS7/14)

In both the A & E and general practice sites, respondents reported that levels of confidence increased as a result of their experience of multidisciplinary education:

I think it makes you much more confident to question decisions that are made and to be quite firm that this is the way we are going to do it and it's the safest way. (ATNC nurse) (CS6/11)

Basically it just gives enormous confidence amongst the team that each person knows what the other is capable of. And equally, for example, when a doctor or nurse attends one of these courses, particularly if they've done the same course, they seem to have an easier rapport over a patient because they've studied together and made the same mistakes together in the classroom but they know they've got through the programme and now work together. (Consultant) (CS6/11)

... it gave me a commitment to the practice ... maybe I felt more confident and less threatened by all the changes ... I feel I've passed that message on to other people in the practice. (Health visitor) (CS7/14)

5.7 Summary

We have explored respondents' perceptions of the effectiveness of multidisciplinary education in terms of the level of delivery, and its impact upon practice in all fourteen sites. Our main findings can be summarised as follows:

- multidisciplinary education is perceived to be more effective at postgraduate level
- it may be effective at undergraduate level where course structure or content is appropriate and focused on specific objectives
- communication may be enhanced when students have developed a greater understanding of the roles of other professionals
- multidisciplinary education may reinforce participants' sense of their own professional identity
- it may also lead to increased personal and professional confidence
- it may facilitate better and more cohesive working practices.

Notes

1 In CS6/12, nurses participated as observers in an ATLS course designed for doctors and run under the auspices of the American College of Surgeons. In CS6/11, nurses participated in an ATNC course run in tandem with the ATLS course.

6: Facilitators

6.1 Introduction

In this section, we examine the factors which facilitate the development of multidisciplinary education. In 6.2 we focus upon those operating at the institutional level. We also look at particular features of courses which attract students, as it is the nature of their experience that is one of the key determinants of the success of any particular multidisciplinary educational initiative.

In 6.3, we look at external factors which influence the development of such initiatives.

6.2 Intra-institutional facilitators

6.2.1 Personal commitment

It is difficult to overestimate the contribution of committed individuals, or 'product champions'[1] to the success of multidisciplinary educational initiatives. It is clear from our interviews that some of this commitment had been forged by the respondents' experiences in practice. For example, one interviewee with a background in occupational health nursing explained that she had

> *for a long time thought that there were areas, particularly in A & E, where nurses and doctors could work, and train, more closely together.*
> (UG/Pre-reg course organiser) (CS1/1)

She was able to draw upon both her wealth of experience and professional networks built up over the years and 'push' for change in her own institution. It was this level of personal commitment that had transformed the 'vaguely supportive' attitude of the senior university authorities into an action plan:

> *I think the push came, in this institution from me, through possibly my associations with people like X ... I know A is quite friendly with B.*
> (UG/Pre-reg course organiser) (CS1/1)

A similarly situation was reported in a postgraduate/post-registration site (CS4/8)

> *I don't think you should underestimate the effect of X ... X has been good at drawing people in and keeping it all together.*
> (PG/Post-reg course organiser) (CS4/8)

He attributed his colleague's success to the fact that she did not 'have a particular disciplinary axe to grind.' She described herself as 'a bit of a hybrid', and considered her 'eclecticism' to be a crucial element in the successful launch of the Masters programme with which she was so closely associated.

However, the fact that the development, or even the continued existence of a particular course can be associated with a single member of staff can have its disadvantages. One self-styled 'risk-taker' in a undergraduate/pre-registration site (CS3/6) described how the success of her initiative in setting up a course meant that she was now looking to take up a similar challenge elsewhere.

6.2.2 Working together towards a common goal

We have illustrated the importance of personal commitment in promoting successful multidisciplinary education. However, sharing a common purpose and working together to achieve it are also vital ingredients of success. As one respondent explained:

> *You have to have a group of people with a vision ... you have to have people who are as aggressive as me to bulldoze ... to take people through ...*
> (PG/Post-reg course organiser) (CS5/10)

Developing such a shared vision and working together to make it a reality can be laborious and time-consuming. Staff need to be able to draw on the type of personal commitment illustrated above to achieve this. As one course co-ordinator explained:

> *It takes a lot of effort ... it does take a certain type of commitment to keep abreast of other disciplines ... in terms of reading textbooks, articles that were recommended by colleagues, and I did sit in on some of the lectures ... and I listened to the students. ...* (PG/Post-reg course organiser) (CS4/7)

The fact that this particular institution had a high research profile fostered cohesive team-working among the staff, partially determined course development and constituted a staff development activity in its own right. As the Head of Department explained:

> *... often things very much develop depending very much where the research is going ... we in a way follow research ... that is what the lecturers are here to do ... knowing the developments within their disciplines and then bringing them together ... we have departmental seminars, and that gives a chance to talk about our own research to each other, which helps us to practise talking about our subject to people who don't know ...*
> (PG/Post-reg course organiser) (CS4/7)

The references to 'our own research' and 'our own subject' reveal the strong allegiance felt by the staff in this particular institution to their 'home' discipline. This is in contrast to the views expressed in the companion site (CS4/8) where, as we saw above, the course developer considered her detachment from her original discipline as the key to her success.

As we have seen, those involved in initiating and delivering multidisciplinary education face particular challenges in respect of developing a personal style and a range of teaching approaches fit for purpose. One course organiser summed these up as follows:

> *[Staff need to be] open-minded, well-informed and imaginative enough to help people make their own links with material they are engaging with. You have to have some decent quality knowledge that you help the students acquire in a useful area and the sort of personality that enables them to relax and enjoy learning that stuff ... [Staff need to have] facilitating skills.*
> (PG/Post-reg course organiser) (CS3/6)

Individual commitment and the ability to work collaboratively in teams go a long way in enabling staff to respond to these challenges. Nevertheless, one respondent in an undergraduate/pre-registration site made explicit reference to the need for 'staff development ... in terms of team teaching, shared learning.' (CS2/3) She considered institutional support to be vital in securing adequate staff development

opportunities for those engaged in developing multidisciplinary education. It is to this that we now turn.

6.2.3 Institutional support

There was a widespread perception amongst course organisers in both pre- and post-registration sites that they had developed successful ways of working collaboratively in order to achieve a shared purpose (CS1/1, CS1/2, CS2/3, CS2/4, CS4/7, CS4/8, CS5/9 and CS5/10). However, the degree to which those interviewed were secure in the knowledge that they enjoyed the support of the host institution varied considerably. In one case (CS1/1) the institution was described as 'vaguely supportive' of attempts to introduce multidisciplinary education into the undergraduate medical and nursing curriculum. It is perhaps to be expected that staff were generally unsure of the degree to which their host institution supported their endeavours, given that most initiatives were located in departments at some remove from the policy-making centre of the institution, and that there was no evidence that fostering multidisciplinary education was an explicit policy in any institution.

It is not surprising that staff were better placed than students to comment upon facilitators operating at the institutional level. The main priority for the undergraduate/pre-registration students we interviewed was to gain a discipline-specific professional qualification. We encountered none who claimed to have been attracted to the course specifically because of its multidisciplinary nature. For most, the multidisciplinary element was perceived as having been grafted on to an essentially uniprofessional course. Although there was some general recognition of the potential value of learning together, this was often coupled with the desire to 'have some ... grounding in your profession' first (CS2/4). We shall return to the significance of this finding when we look at factors inhibiting the development of multidisciplinary education.

Similarly, the post-registration students cited the fact that their course was modular, and could be done on a full or part-time basis as an attractive feature (see also Appendix 3). As one post-registration student explained: 'being able to take it [the course] over five years also fits into work and family commitments.' (CS3/5) Such considerations weighed more heavily than any objective assessment of the intrinsic merits of the course.

6.3 Extra-institutional facilitators

We recognise that the distinction between what we describe as intra- and extra-institutional facilitators is an artificial one. As we saw in Section 6.2.1 above, an individual's prior experience in clinical practice, the contacts and networks built up in the course of a career have a powerful influence on the degree of commitment they bring to multidisciplinary education. As the following comment makes clear, they can also facilitate course development and put funding arrangements in place:

> *we've all got connections and are networked into the NHS. And that's been really important, in fact that's been vital I'd say to developing the degree.*

getting money from the NHS for things like bursaries for instance. And understanding what the needs of that industry [sic] are for this sort of degree. ...
(PG/Post-reg course organiser) (CS3/5)

Nevertheless, it is possible to identify a number of important external influences upon the development of such initiatives. It is these to which we now turn.

6.3.1 The Centre for the Advancement of Interprofessional Education

Founded in 1987, the main purpose of the Centre for the Advancement of Interprofessional Education (CAIPE) is 'to promote high quality developments in the practice and research of interprofessional education and training in primary health and social care.'[2] CAIPE has undoubtedly made a significant contribution to raising awareness of 'interprof[illegible]sues in the field by documenting and describing current initiatives. Two [illegible]uate course organisers (CS1/1 and CS1/2) made explicit reference to the role of CAIPE in helping them develop their thinking in relation to multidisciplinary education:

Q: Where did the initial impetus [for developing multidisciplinary education] come from?

A: (Speaker 1) I don't know, why did we get together?

(Speaker 2) A cryptic 'phone message that I got from our dean ... asking me to contact [Speaker 1) ...

(Speaker 1) I had joined CAIPE by this time, CAIPE had inundated me with a pile of literature, and I have a very close friend who is the Head of Service at A & E ... (UG/Pre-reg course organisers) (CS1/1)

Q: What's the thinking behind bringing it down to the beginning?

A: ... the literature and the seminars I've been to at CAIPE and people that have been involved in shared learning, they all seem to advocate that the sooner you start off shared learning to break down stereotypical attitudes, and to develop interpersonal skills, communication skills, teamworking skills, that this should begin as soon as possible. (UG/Pre-reg course organisers) (CS1/2)

CAIPE clearly plays an important role in promoting communication between course developers and other interested parties. However, the transcript evidence cited above suggests that CAIPE may be contributing to the promotion of a new 'orthodoxy' of 'interprofessional' education (cf. the implication that 'the sooner you start off shared learning [the bet[illegible]]. We acknowledge that it is difficult to strike the right balance between advocacy (in the form of publishing information and opinions) and providing a forum for debate about rationale and expediency. Unless there is an integration of these two perspectives, CAIPE's achievements may contribute to the professional re-entrenchment and 'boundaryism' alluded to in Section 2.

It is at this point that data (in the form of interview transcripts) originally categorised as 'facilitating' the development of multidisciplinary education may ultimately be regarded as an 'inhibitor'. Or at the very least these two categories may exist in a reciprocal relation to each other. The following quotation is drawn from a focus group meeting with MSc course organisers, in which the perceived 'hidden agenda' behind the promotion of multidisciplinary education was extensively discussed:

I'm suspicious that there is a motivation behind this [the promotion of multidisciplinary education] to disempower various professional groups and to foster the idea of a single mixed profession, a generic worker that is less skilled, has less autonomy as a professional group, less power, and that such an argument would be supported by the reactionary element in the medical profession ... equally I could see that the government would be quite happy to disempower nurses in particular, but lots of other groups.

(PG/Post-reg course organiser) (CS5/10)

The above extract is worth quoting at some length, as it so clearly illustrates the degree of suspicion with which the promotion of multidisciplinary education is viewed. As a colleague explained, the collective vision of the staff was that the purpose of 'interprofessional' education, as distinct from 'shared learning' extended beyond identifying and filling 'communication gaps'. Rather,

by amalgamating different professional groups you get something that's more than the sum of its parts, you get something different, a metaperspective.

(PG/Post-reg course organiser) (CS5/10)

However, this was not at the expense of ceasing to '[recognise] differences and respect each other.' The alternative model, as the same respondent explained, is 'the melting pot model, where everybody becomes coffee coloured' — a 'generic' practitioner. Such suspicions were not confined to this one site, or to post-registration provision. A course organiser in an undergraduate site (CS2/4) felt 'that there is a move, in some quarters, for grouping some of the skills to be shared among a number of disciplines. ... I think there is a political element as well ...'. Similar sentiments were expressed by a postgraduate course organiser in CS3/5[3]:

and I suppose the idea there is that they see a large number of people working in a sort of generic way and I suppose from there a few people stemming off to become more expert in particular areas. And I'm not quite sure if that's really feasible. ...

(PG/Post-reg course organiser) (CS3/5)

The above quotation illustrates that education providers still need to be convinced of the feasibility, or indeed desirability, of mounting a course 'that's very sort of basic in foundation for everybody'.

6.3.2 Extra-institutional facilitators: the students' perspective

We were interested in students' reasons for participating in a multidisciplinary course. As we saw above, undergraduate/pre-registration students were primarily interested in gaining a professional qualification. Although the multidisciplinary element of the MSc courses we included in our study was attractive to students, they too were primarily interested in gaining a qualification. As a member of staff in one institution pointed out,

there's ... an inflation in ... the credit worthiness of qualifications. Years ago a PG Diploma was what was required for professional development, now it is a Masters. Tomorrow it will be a PhD or something else ....

(PG/Post-reg course organiser) (CS5/10)

On the basis of the available evidence, we hypothesise that the ever-changing nature of clinical practice has created a climate of uncertainty, in which experienced professionals seek to legitimate themselves by gaining new qualifications. A postgraduate student in one focus group (CS5/10) confessed to the researcher off-tape that he had felt 'professionally disemboweled' in the past, and had thus felt it necessary to 'upgrade' his professional qualifications. As we saw above,

'facilitators' and 'inhibitors' are very much two sides of the one coin. If professional uncertainty and insecurity can attract students to multidisciplinary courses, it can also have the opposite effect. As the course organiser quoted above went on to explain:

> *this creates a dreadful pressure on students to get their qualifications in the quickest, least complicated way as possible, and that usually means a simple, uniprofessional approach.* (PG/Post-reg course organiser) (CS5/10)

6.4 Summary

Let us conclude this section by summarising the main points to emerge from our consideration of 'facilitators':

- committed individuals appear to play a key role in the success of multidisciplinary initiatives
- staff need to develop a common sense of purpose, and to work together to achieve it
- this process is time-consuming, and may require some targeted staff development activity
- the explicit support of the host institution appears to play a significant role in successful initiatives
- flexible, modular courses (full- or part-time) are apparently attractive to students
- the rationale for the promotion and development of multidisciplinary education needs to be made explicit to both staff and students
- the manpower implications of the promotion and development of multidisciplinary education need to be made explicit to both staff and students.

Notes

1 This is the term adopted to describe such individuals in *Multiprofessional Education and Training*. A Report for the NHS Executive based on a National Seminar facilitated by the King's Fund Centre for Leadership and Change in conjunction with a National Scoping Study prepared by the Centre for the Development of Nursing Policy and Practice, University of Leeds, March 1997. (p19) 'Innovation of this kind requires product champions with humour, passion and determination'.

2 CAIPE Bulletin, No 12, Winter 1996, p 1.

3 This is a reference to *The Future Healthcare Workforce*. Report of the Project Steering Group (1996).

7: Inhibitors

7.1 Introduction

In this section, we examine the factors which our respondents considered inhibited the development of multidisciplinary education. In 7.2, we turn our attention to factors operating at the institutional level. Here we focus specifically on the data collected in Higher Education institutions from both staff and students. Not surprisingly, staff had a clearer overall picture of inhibiting factors in their own institutions; and staff and postgraduate/post-registration students could draw on their experience of the health service to identify inhibiting factors operating beyond the level of their particular institution. Nevertheless, several drew attention to the demands imposed by attempting to combine studying for a degree with maintaining a career in clinical practice. In Section 7.3, we look at external factors which inhibit the development of multidisciplinary education.

7.2 Intra-institutional inhibitors

7.2.1 Logistics

We had asked course organisers to identify aspects of their courses which were 'not going so well' and those which were 'going well' (see Appendix 4). Where appropriate, we asked why they thought this was the case. As one pre-registration course organiser explained, many of the difficulties they encountered in organising multidisciplinary courses were

> *not a problem of ... shared learning* per se, *[but] a problem of how we've got it in our programme at the moment ...* (UG/Pre-reg course organiser) (CS2/4)

Many of the course organisers' comments relate to specific logistical problems associated with organising and delivering courses involving several professional groups, and staff from more than one department. As one course organiser told us:

> *One of the biggest problems is actually getting people together, trying to organise a meeting of heads of departments, for instance ...*
> (UG/Pre-reg course organiser) (CS1/2)

These difficulties, although particularly marked in the undergraduate/pre-registration sites (CS1/1, CS1/2, CS2/3, CS2/4), also affected sites offering postgraduate/post-registration provision. An MSc course organiser also referred to

> *... constantly having to meet, talk to one another on the 'phone, with the medics it's always difficult to catch them ... it just means that you haven't got a group of people who are instantly available, as we are here, it's easy for us to collaborate, but where we've got people from other parts of the college it's more difficult.* (PG/Post-reg course organiser) (CS4/7)

We now turn our attention to the other institution-specific, logistical difficulties. These can be summarised as follows:

- an imbalance in student numbers
- finding suitable accommodation for large- and small-group teaching
- access to library and IT facilities
- timetabling across groups with discrete, discipline-specific timetables

'A problem in balancing numbers'

As the following quotation makes clear, there is a perception that multidisciplinary education works best when there are comparable numbers of students drawn from each professional group:

> *Because we were looking for areas of similarity ... obviously entry gates were important, and our entry gates for our undergraduate programme are reasonably compatible with entry gates for the medics, they're not quite the same standard. If we took our diploma students, which we've got far more, I mean you're looking at possibly 100 undergraduates compared with 900 diploma students across the three and four years, the entry gate for diploma students is very, very different.* (UG/Pre-reg course organiser) (CS1/1)

CS1/2 provides a further example of the 'problem in balancing numbers':

> *We've got 210 students on the new medical course ... 60 dentists, and they [the other professional groups] get progressively smaller in number. I think 16 is probably the smallest number, in diagnostic radiography.*
> (UG/Pre-reg course organiser) (CS1/2)

A course organiser in another undergraduate site where there were plans to bring medical and nursing students together for training in communication skills and in cardio-pulmonary resuscitation (CS1/1) also described the imbalance of numbers as 'the biggest problem', as the ratio of medical to BSc nursing students was 7:1.

Although the problems posed by imbalances in student numbers is particularly acute in the pre-registration examples, it is not confined to them. One MSc student told us that she was the only representative of her profession (nursing) in one particular module, which was 'totally social service oriented' (CS3/6).

Accommodation

However, the numbers issue clearly has implications which extend beyond notions of an optimum mix of students. As we saw in Section 4, '*multi*disciplinary', particularly at undergraduate/pre-registration level, can often simply mean bringing together many professional groups and offering them, for example, 'shared physiology, shared anatomy, and shared social science' (UG/Pre-reg course organiser, CS1/2). This presents particular difficulties in terms of accommodation. As the same course organiser went on to explain:

> *... if I put all the undergraduates here together, I'd be up round the 160 and I couldn't fit them in the lecture theatre.*
> (UG/Pre-reg course organiser) (CS1/2)

In her view, and in those of three of her colleagues, 'you really need to be doing problem-solving together' if multidisciplinary education is to be effective. And this too presents its own problems in respect of accommodation. As one member of staff in this institution explained:

> *another problem is accommodation, because if we want lots and lots of small groups, finding enough accommodation is a nightmare.*
> (UG/Pre-reg course organiser) (CS1/2)

The 'rooms issue' was particularly acute in CS2/3, where large numbers of undergraduates were taught together in both large- and small-group formats. In addition, large student numbers put considerable pressure on other resources, for

example library and IT facilities, particularly in the undergraduate/pre-registration sites.

Library and IT facilities

> *The only other problem with shared learning is that if there is an assignment due in there are 95 students wanting 6 books or whatever and this may be the only time of the year that they want them. It is a difficult problem, and we try to get round it by putting the books on short loan ... but I think they find it quite stressful.* (UG/Pre-reg course organiser) (CS2/4)

The respondent quoted above also referred to the problems students encountered in getting access to computers when an assignment was due.

Although these difficulties were more pronounced in sites offering undergraduate/pre-registration provision, where the pressure of student numbers is greater, they were not confined to them. There was an explicit reference to 'a problem with resources, particularly library resources' in CS3/5, which offered an MSc in Health Sciences. It is worth pointing out, however, that problems of this sort are unlikely to be confined to multidisciplinary courses.

Timetabling difficulties

Timetabling difficulties were particularly evident in the pre-registration sites, especially in the two sites where there was multidisciplinary provision involving medical, nursing and PAMs students (CS1/1 and CS1/2). As one course organiser told us:

> *timetabling is perhaps one of the biggest obstacles ... so what we can do between the departments now may be fairly minimal.*
> (UG/Pre-reg course organiser) (CS1/2)

One of her colleagues also attributed the fact that there was 'very little shared teaching with the medics' to 'logistical reasons', namely that 'this is the first year of the new medical course' and those responsible for organising it

> *had enough teething troubles with getting their new course running [without] having additional students taking certain elements of [it] ...*
> (UG/Pre-reg course organiser) (CS1/2)

In her view, the fact that many undergraduate courses were 'so heavily taught' exacerbated timetabling difficulties.

7.2.2 Structural limitations

As we saw in Section 6, institutional support was considered essential to the success of multidisciplinary educational initiatives. Nevertheless, the degree to which the course organisers we interviewed were secure in the knowledge that they enjoyed the support of the host institution varied considerably. In Section 2, we made brief reference to the attempts to foster interdisciplinary enquiry, which, in the view of one MSc course organiser, was 'an important part, the underpinning of our teaching by research' (CS4/7). In several other post-registration sites (CS3/6, CS4/8, CS5/9), this was compounded by an institutional structure which was to varying degrees inimical to collaborative working practices and multidisciplinary

course development. The following two quotations provide clear illustrations of this:

> *I have no problem at all with departmental support ... however the structure does not do all it can to encourage [inter-departmental collaboration] because we do not have a faculty structure, there are isolated departments which are autonomous.* (PG/Post-reg course organiser) (CS3/6)

> *... within the university there is a difficulty of understanding the concept, because the university has disciplines, subject disciplines, and we have what we call multidisciplinary programmes, so I had to highlight that this is about professions, not disciplines.* (PG/Post-reg course organiser) (CS5/9)

So far, we have focused on inhibiting factors operating at the level of the individual institution. We now turn our attention to extra-institutional inhibitors.

7.3 Extra-institutional inhibitors

The interview data indicate a number of external inhibiting factors, several of which are interlinked. These can be summarised as follows:

- the role of professional bodies
- unsynchronised validation cycles and profession-specific accreditation
- the existence of separate levies for medical and dental education and training (MADEL) and non-medical education and training (NMET)
- the perceived need to maintain professional identity, standards and value systems in a climate of change
- funding constraints
- competition within the HE sector
- the growth of 'managerialism' in the health service

Below we examine each of these issues in turn, and explore how they are interrelated.

7.3.1 The role of professional bodies

The primary function of a professional body is to safeguard professional standards, and to ensure that education and training are appropriate to that purpose. Ensuring that their courses meet the specifications of the professional bodies can pose logistical problems for multidisciplinary course organisers. One pre-registration course organiser (a nurse educator) described how she and her colleagues were 'constrained by professional bodies, to some extent.' She went on to relate how one shared learning opportunity (between nursing and PAMs students) had 'kind of fallen off the horizon' because teaching staff were constrained by the requirements of a particular professional body:

> *... the ENB are a very prescriptive organisation, and it's rather hard fitting in the 2,600 hours of clinical practice, plus all the theoretical input that they say you have to cover in terms of hours.* (UG/Pre-reg course organiser) (CS1/2)

7.3.2 Unsynchronised validation cycles and profession-specific accreditation

Another respondent in the same pre-registration site (CS1/2) referred to an external inhibitor which is directly linked to the control over course development and

innovation exercised by the professional bodies. As she explained, the fact that allied courses come up for validation at different times means 'that it is going to be more difficult for them [course organisers] to start changing bits of their courses.' A post-registration course organiser (CS3/6) considered that the fact that courses are currently accredited by distinct professional bodies was a potent inhibitor of developments in multidisciplinary education:

> *There does have to be an accrediting body that has to be powerful, but it must overarch all professions co-opted within it— including medicine— otherwise we'll end up with medicine and all the rest— which will probably suit medicine. Not that I'm anti-medicine, but they have always had, up until now, a throttle grip on power.* (PG/Post-reg course organiser) (CS3/6)

There were several references in the interview data to 'the medical profession's reluctance to participate ... on a wide scale' (CS3/6). As another MSc course organiser explained:

> *doctors ... only want to be associated with doctors' business and only attend PG accredited courses, and so doctors wouldn't come to polytechnics or what we would call new universities [..] doctors very rarely are at interprofessional events other than when it took place in their premises or in their arena.*
> (PG/Post-reg course organiser) (CS5/10)

7.3.3 Separate training levies

In the view of another post-registration course organiser in the same institution (CS5/10) the fact that it was proving difficult to attract members of the medical profession 'could also in part be attributed to the existence of separate training levies for medical and dental education and training (MADEL) and non-medical education and training (NMET).[2] In her view, the existence of separate levies was a potent inhibitor of the medical professions involvement in multidisciplinary initiatives:

> *It's important to note that there is a clear distinction between —this comes back to why doctors do not attend— the funding for medical education, which is under one strand completely separate from the purchasing commissioners for educational contracts at the local level and they are a consortia of commissioners ... so the purchasing consortia at local level are involved with placing contracts, and the money for contracts at local level, for health authority needs, we're not talking about social and community care now, and the NHS Executive have made it clear that.. they use the word multidisciplinary ... targets and programmes are relevant ... It is a view expressed by the NHS Executive, but does not actually require the local consortia to engage in this, but they are directed to consider it. My point is that this is a real contrast with how medical education is funded, they are not directed or even suggested to consider multidisciplinary education. That may change with the primary care led NHS ... so there are a whole set of ramifications regarding the funding.*
> (PG/Post-reg course organiser) (CS5/10)

7.3.4 Maintaining professional identity, standards and value systems

We are wary of the term 'tribalism', which is frequently used to describe the kind of concerns raised by a number of interviewees about the maintenance of their professional identity, standards and value systems (see, for example, Becher, 1989). The term only occurs three times in the interview transcripts: twice in the focus group discussion held at the beginning of the project; and once in the following extract from an interview with a pre-registration course organiser:

> *Q: And you think at that stage [at undergraduate/pre-registration level] it's more important for them to develop some sense of their own professional role?*
>
> *A: Well, yes. But I can understand why the government doesn't want them to do that, because then you get what they call tribalism ... if you give them a sense of relatedness to a particular professional group, then by definition they want to execute these functions within the health service, and I think there's a tension there ...* (PG/Post-reg course organiser) (CS1/2)

The term 'relatedness' is clearly the one preferred by this particular respondent, who went on to elaborate what she described as 'the moral obligation to produce safe practitioners'. She considered that professional standards might be jeopardised by 'putting people together and diluting single professional inputs.' (CS1/2). Although more acute in the undergraduate/pre-registration sites, the perception that delivering multidisciplinary courses might lead to a 'dilution' of professional standards was not confined to them (see also CS3/6). In this latter case, the issue of the potential lowering of professional standards was explicitly linked to a perception of increased levels of [illegible] within the HE sector. We shall return to this issue in 7.3.6.

As we suggested in Section 2, the fact that nursing and PAMs education have only recently moved into the higher education sector may have had an impact upon the development of multidisciplinary education. One course organiser described how she was

> *very anti [multidisciplinary education at undergraduate/pre-registration level] in one respect, because you sort of think well we've got degrees in which we have tried to do a lot of integration of academic and practice things, we've tried to get a thematic approach ... and to have to then pull out elements of that to create a perhaps sometimes false situation ...*
>
> (UG/Pre-reg course organiser) (CS1/2)

It is ironic that an initiative that is aimed at increasing the degree of integration at the meta-level should be perceived to reduce it— albeit temporarily— at the micro-level.

There was a widespread consc[illegible]oth staff and, where applicable, students in the undergraduate/[illegible]ion sites (CS1/1, CS1/2, CS2/3, CS2/4) that students preferred to develop 'a sense of relatedness' (CS1/2 staff) to their particular professional group before engaging in multidisciplinary education. The following quotations provide some illustrations:

> *People say well just give them a common year, and then send them off into a profession. I think we're a long way from being able to do that because ... the people coming into the course choose to come to physiotherapy and want to be physiotherapists ... they think 'what's this got to do with me?'*
>
> (UG/Pre-reg course organiser) (CS1/2)

> *I think some of it's about professional identity that they feel that they came to be nurses and they want to be on something that is clearly defined as a nursing course.* (UG/Pre-reg course organiser) (CS2/4)

> *People should find their feet first on the course that they're actually doing.*
>
> (UG/Pre-reg student) (CS2/4)

In this site, early exposure to other professional groups had proved counterproductive:

> *I felt dominated by the other professions, in particular radiographers ... unless you forced them to speak to us they wouldn't do it off their own bat. I felt there was a hierarchy there ... even with OTs sometimes I felt quite dominated by them.* (UG/Pre-reg student) (CS2/4)

However, we note that the mood in the other focus group conducted at this pre-registration site was rather different. Despite misgivings about much of the course being held on another group's 'territory', the students in this group had a more positive attitude to their early introduction to multidisciplinary education— albeit that several thought that the effects were relatively short-lived:

> *It puts the barriers down between professions, for a start ... professional barriers between a radiographer and an OT ... when we were studying together, we'd all go and revise together ... and now we've split up a little bit now, the barriers are there now.* (UG/Pre-reg student) (CS2/4)

It is clear from the pre-registration data (CS2/3, CS2/4) that large-group teaching, often accompanied by an imbalance in the numbers drawn from different professional groups, exacerbates some of the 'territorialism' described above. So too does the difficulty many staff encounter in trying to come up with examples which are meaningful to all the student groups involved. This problem was particularly acute at undergraduate/pre-registration level, where the students had insufficient clinical experience upon which to draw:

> *... people were not putting in relevant examples to practice, they were talking about things that weren't related to any of the professions, and the students haven't got enough knowledge of the profession to be able to extrapolate ... whereas an audience of professionals who could plan it, saying well yes, that does fit in there, were planning it from a different knowledge base, and the students couldn't see that.* (UG/Pre-reg course organiser) (CS1/2)

A colleague in a different institution offering provision at undergraduate/pre-registration level expressed a very similar opinion:

> *I think it's really difficult to get the content of the module to be tuned so that it is applicable to certain professions. The different professions appear on the surface to have similar needs, but the actual requirements, the things that make the professions different require different patterns of knowledge and skills.* (UG/Pre-reg course organiser) (CS2/4)

In this respondent's view,

> *the nearer you get to graduation in undergraduate study, the more professional identity each discipline will have and as a consequence the more they will be able to give and exchange.* (UG/Pre-reg course organiser) (CS2/4)

Another course organiser in the same site (CS2/4) thought that students were insufficiently convinced of the rationale for the multidisciplinary element of their course, and that this had led them to question its usefulness:

> *I think considering the rest of their course is not shared learning, they want to know why they are doing this as shared learning.* (UG/Pre-reg course organiser) (CS2/4)

7.3.5 Funding constraints

Respondents in several institutions cited an increasing awareness of the need to reduce duplication of service provision. The development of multidisciplinary education was one response to this. Closely allied to this was the view that the need to use funding resources more effectively in the education sector was also an

43

important driver. The following exchange between two colleagues in the same institution makes this clear:

> *A: I'm sure it's the government's intent to bring our education closer, but I think for the wrong reasons. I think they're doing it because of what they see as financial gains. I don't think there will be financial gains, because I don't think you'll reduce the amount of teachers.*
>
> *B: But in terms of employment later on, their vision might be that you employ a nurse instead of a doctor, at half the cost, which is very dangerous ...*
>
> *A: And you employ a care assistant rather than a nurse.*
>
> (UG/Pre-reg course organiser) (CS1/1)

MSc students in another site reported that they felt 'constrained' in their choice of course because they were wholly or partly funded by their employer:

> *I was asked at the beginning what modules I was intending to do and what benefit this might bring to the Trust. So to some extent I'm perhaps a little more constrained about what I choose because I'm being supported by my employers.* (PG/Post-reg student) (CS3/5)

This may have the effect of reinforcing a trend an MSc course organiser (C55/10) had attributed to 'an inflation in the cost, the credit worthiness of qualifications' which led students to seek qualifications via the quickest, simplest, route.

7.3.6 Competition within the HE sector

There were several references to 'dreadful competitiveness' (CS3/5) within the HE sector.[3] Staff in another post-registration institution (CS5/10) identified 'the drive towards sheer numbers ... bums on seats as a powerful determinant of course structure and content. They went on to describe how they had had to make certain changes in the pattern of delivery of the MSc course to make it economically viable. As a result the interprofessional focus had become somewhat blurred:

> *It's the tail chasing the head, it's that perpetual circle, because ... the educational establishments are forever looking for larger numbers and that is the guiding force, regardless of a rationale that may once have been espoused to a particular event, in this case interprofessional, it tends to mow down the whole operation ... there are all sorts of games being played in order to secure economic business.* (PG/Post-reg course organiser) (CS5/10)

In addition, as another member of staff in the same institution pointed out, funding (and time) constraints in another sector also had an impact upon course design, development and implementation:

> *The Trusts' consortia will only support what they think is instrumental for their operation if the costs and contracts are right.*
>
> (PG/Post-reg course organiser) (CS5/10)

7.3.7 The growth of 'managerialism' in the health service

We have already discussed post-registration students' perceptions of the potential impact of multidisciplinary education upon clinical practice. The following exchange between the interviewer and two MSc students illustrates how two different facets of what one might term 'the growth of managerialism' can inhibit students' ability to implement what they have learned in the workplace:

> *Q: So some of the barriers might be the way Trusts are organised, the way directorates are organised, and the traditional hierarchial role of the doctor. Any other things you see inhibiting you using the multidisciplinary experience of this course when you go back to practice?*

A: Yes, another part of that structure is the change in management structure away from the traditional manager to nurse managers. I'm sure, I'm beginning to believe that the nurse managers haven't got the skills that traditional managers had and nurse managers may inhibit us taking things back and using them. I'm not sure. I have a concern that we're losing too many of the traditional managers.

[B] I don't know whether this is what you mean but one of the things I see as a clinician is that I came into the profession to work with patients. I'm now at the top clinical level and have been for the last five years. I cannot go any further in my profession and that's common to all the paramedics, or most of them, that there are no clinical seniority levels. You have to become a manager. Now I don't think I'd be a very good manager because I don't think I have those skills. I don't want to become a manager; I didn't become an OT to become a manager. And I suspect most managers who are OTs have been forced into that position [A agrees] in order to continue progressing financially and for other reasons as well. There are some very good OT managers but like all professions our main skills are not in management, our main skills are in clinical work.

(PG/Post-reg students) (CS3/5)

7.4 Summary

The transcript evidence suggests that there are several potent inhibitors to the successful development of multidisciplinary education. These are seen to operate both at the level of the individual institution and beyond it, and may be summarised as follows:

Intra-institutional inhibitors

- an imbalance in student numbers
- finding suitable accommodation for large- and small-group teaching
- access to library and IT facilities
- timetabling across groups with discrete, discipline-specific timetables

Extra-institutional inhibitors

- the role of professional bodies
- unsynchronised validation cycles and profession-specific accreditation
- the existence of separate levies for medical and dental education and training (MADEL) and non-medical education and training (NMET)
- the perceived need to maintain professional identity, standards and value systems in a climate of change
- funding constraints
- competition within the HE sector
- competition between Trusts
- the growth of 'managerialism' in the health service.

Notes

1 CS5/10 was not the only postgraduate/post-registration course which had not attracted the medical profession. There were no doctors among the first year of intake in CS5/9. In CS3/5, there were two distinct strands to the MSc — one which tended to attract members of the medical profession, the other members of the professions allied to medicine (PAMs).

2 We note that there are divisions even within the NMET levy, for example, funding from the English National Board (ENB) excludes the Professions Allied to Medicine.

3 There was also a perception that 'there's a culture of contest now, pitching Trust against Trust.' (CS3/5)

8 The commissioners' perspective

8.1 Introduction

The data reported here draws on interviews with Directors of Education and Training in three NHSEs (A, B and C) and chairs of three consortia, one in each NHSE.

We were primarily interested in the perceptions of those parties entering into contracts with HE institutions as to where the impetus for the development of multidisciplinary education originated; its relation to other developments within the service; its place upon their agenda; and factors which, in their view, facilitated or inhibited its development. We rely more heavily upon the interview data gathered from the Directors of Education and Training (in NHSEs A, B and C), as the commissioning process within the consortia is still in a relatively early phase of development:

> *the function very much is evolving, because to start with [we have to come] to grips with the contracting environment and workforce planning, and frankly a whole new industry there.* (Commissioner C)

8.2 Changes in the NHS

In Section 2, we outlined how changes in patterns of health care delivery, and in the structure of the NHS itself, have impacted upon professional development in health care. The qualitative data reported in Sections 5 to 7 vividly demonstrates the extent to which these changes have had an impact on the personal and professional lives of health care workers— both those involved in service provision and those responsible for devising educational programmes which are fit for purpose. As the following quotation illustrates, the three Directors of Education and Training we interviewed were also acutely aware of the implications of rapid change for their professional practice.

> *... the difficult thing is the pace of change within the service itself, both in the provision of care and what is expected of a qualified professional, and the organisational changes within the NHS ... the responsibility for that [gathering evidence-based assessments of the benefits of multidisciplinary education and facilitating its implementation] is moving around, you're constantly getting new people involved and it drops off the agenda ... multiprofessional drops right of the agenda because all we were worried about was integrating colleges into the higher education system. And it's fallen off the agenda again because we're currently devolving the commissioning to the consortia ...*
>
> (Director of Education and Training, NHSE A)

In Section 2 we heard a course provider describe how the pace of change within the service can lead to a lack of coherence in the individual health professional's experience of education and practice. The result can be a degree of re-entrenchment behind professional boundaries which might inhibit the extent to which multidisciplinary education is developed or espoused. As the above quotation demonstrates, this lack of coherence is mirrored at the level of those responsible for translating strategic policy into action. Here too, responsibilities are being passed from one group to another. In a situation such as this, it is all too easy for

words such as 'multiprofessional' and 'multidisciplinary' to 'have come to mean something and nothing to everybody'. As one Director of Education and Training pointed out,

> *there are so many interpretations of what it [multiprofessional education] actually means, and I think a lot of people talk about shared learning as being multiprofessional education ...*
>
> (Director of Education and Training, NHSE B)

This lack of clarity surrounding the meanings of the key terms partially explains why one Director of Education and Training (NHSE A) described multidisciplinary education at pre-registration level as 'a sort of a lip service approach rather than a genuine integration and a requirement to do shared modules.'

8.3 Rationale: supporting changes in health care delivery

Changes in patterns of health care delivery are associated with a reappraisal of traditional working practices and divisions of labour. The evidence from the six interviews with the education commissioners suggests that it is the perceived needs of the service (outlined in more detail in Section 2) that are driving the development of multidisciplinary education, and not necessarily a belief in its intrinsic merits. Indeed, as we saw above and as the language of the following quotation illustrates, the notion of multidisciplinary education is 'conceptually amorphous and ideologically sanguine' (Little, 1990, p 509). Nevertheless, multidisciplinary education is seen as articulating with a development that has a higher profile in terms of strategic policy, viz the integration of workforce planning which necessitated a shift from occupation-based manpower planning to service-based planning:

> *the positive intention in the Executive is to integrate the whole of the workforce planning between medical and non-medical. Now clearly some objective of that would be to, as far as possible, have integrated training programmes or multiprofessional sort of training which would enable the service to sort of better plan and manage staffing ... but also become more efficient in the actual training programmes themselves.*
>
> (Director of Education and Training, NHSE A)

8.4 Perceptions of effectiveness

Director of Education and Training (B) attributed the fact that 'there's not a policy as such to say that thou shalt pursue multiprofessional education' to the 'lack of hard evidence ... as to the benefits.' This caused some concern, particularly as, in the words of Director of Education and Training (A):

> *Multiprofessional education is a bit like a motherhood and apple-pie statement, oh yes, a good thing, of yes, we're doing it ... unless you ... can demonstrate that the case has not been made, there's a presumption that the case is there, which given that the service keeps banging on about evidence-based practice ... you prove that sort of thing's worth doing before you do it.*
>
> (Director of Education and Training, NHSE A)

Nevertheless, in the absence of 'hard' evidence (in the form of randomised controlled trials) several respondents expressed a belief in the effectiveness of multidisciplinary education, or at the very least that it had the potential to support changes in patterns of service delivery:

some of the changes which we're trying to create in working practice will certainly be enhanced by more opportunity for multiprofessional education and therefore one of the things we do as an NHS executive is we publish planning guidelines for education and training annually.
(Director of Education and Training, NHSE B)

if we ... proactively educate different professions together ... that means we will have a much more collaborative set of people, teams working together, greater flexibility to the benefit of patient care, health care. And ultimately that will be more effective in securing a healthier population, which is what it's all about. These are not ends in themselves, they are means to an end ...
(Director of Education and Training, NHSE C)

I guess that would be the thing that the consortium would probably start with ... more post-registration training than pre-registration, because you get more sort of problems in terms of more stakeholders and more of the professional barriers.
(Commissioner A)

If the respondents' attitude to the principles of multidisciplinary education can broadly be described as positive, there is little doubt that they considered it more effective at post-registration level than at pre-registration level:

I think at the moment there are greater opportunities for multidisciplinary education at post-registration. Probably more opportunities for shared learning at pre-registration.
(Director of Education and Training, NHSE B)

[at pre-registration level] my perception is ... that it tends to be limited to groups of people who are doing different courses, attending joint training seminars, and ... you put them all in a room together and listen.
(Director of Education and Training, NHSE A)

Several of the reasons adduced for the limited potential of multidisciplinary educational initiatives at pre-registration level relate to a range of inhibitors identified by the respondents. Several of these are closely inter-linked, and will already be familiar to the reader of Section 7. We shall return to these in 8.6 below.

8.5 Factors promoting development and implementation

8.5.1 The role of the consortia and HE institutions

Multidisciplinary education was generally perceived to have been developed on an *ad hoc* basis. As one Director of Education and Training (NHSE B) pointed out:

I think what's interesting is there's far more going on in terms of individual employer-funded activity through the continuing professional development kind of routes. (Director of Education and Training, NHSE A)

As we saw in Appendix 1, mapping the extent and nature of such activity presents particular difficulties.

The Director of Education and Training in NHSE (A) expressed the view that if multidisciplinary education were to succeed, then clear 'guidance from the centre' was required. In this respondent's view, developments should be based on the experiences of pilot sites and be broadly consonant with the principles of evidence-based practice:

We've got to try to develop a particular model of multiprofessional education that's going to involve a, b, c current separate professions, you would need a) guidance from the centre and probably support, financial and otherwise to take the pilot forward; (b) the ownership of the local consortium as commissioner

and engine driver. One HEI or more in that area to actually say yes, okay, we'll go forward, and the professional bodies at a local and national level to actually support it. Because if they don't, they're just going to ... be non-cooperative and the whole thing will just sort of fizzle out.
(Director of Education and Training, NHSE A)

As is evident from the above quotation, there was a perception that the consortia are potentially powerful engines for developing the type of education and training most appropriate to support and further to develop multidisciplinary working practices:

we've now got consortia, which are much closer to the coal face in terms of what they need, and I think they will be a good driver.
(Director of Education and Training, NHSE B)

Nevertheless, if multidisciplinary education is to be successfully implemented on a wide scale, the HE providers need to respond positively to the commissioners' agenda, and work towards overcoming some of the barriers perpetuated and reinforced by departmental structures. It is to these inhibiting factors that we now turn.

8.6 Factors inhibiting development and implementation

8.6.1 Separate training levies

As we saw in Section 7.3.3, education providers considered that the existence of separate training levies for medical and dental education and training (MADEL) and non-medical education and training (NMET) inhibited the development of multidisciplinary education and perpetuated the sense of 'separateness' between the professions. Although the continued existence of separate training levies was not directly challenged, it was nevertheless associated with the persistence of a degree of professional 'guardedness'. One Director of Education and Training thought that they would become more closely aligned:

I think the management of the medical training process will be far more closely stitched into and aligned with non-medical education and training because I think the implications of that are more clearly being understood by the consortium and I think it could be a mutually supportive process rather than one which at present is rather professionally guarded on the medical end ...
(Director of Education and Training, NHSE A)

In another NHSE, the Director of Education and Training described how they had gone about obviating some of the difficulties posed by the existence of separate training levies:

well we still have a raft of contracts for physiotherapy, occupational therapy, diagnostic therapeutic, radiography, which had just grown, like topsy. So they're a ragbag of contracts. ... So what we agreed, through the Regional Education Development Group ... is that we would commission all those for professional, educational and those people in professional groups collaboratively. (Director of Education and Training, NHSE C)

This type of 'collaborative commissioning' is clearly one way of surmounting the difficulties posed by the existence of separate training levies.

8.6.2 The role of professional bodies

Several respondents perceived that the professional bodies inhibited the development of multidisciplinary education at pre-registration level, where

negotiating joint validation exercises proved a significant obstacle to the development of multidisciplinary courses on a wide scale:

> *I think at that level, in other words pre-registration, the professional bodies themselves tend to be very jealous and guarding, 'well this is what you require to be a physiotherapist, and this is what you require to be an occupational therapist'.* (Director of Education and Training, NHSE A)

Director of Education and Training B, who was more sanguine about the prospects for the future of multidisciplinary thought that 'the professional bodies will get dragged along kicking and screaming.'

This tendency for the professions to 'jealously guard their separateness' was, in the view of Director of Education and Training B, exacerbated by the fact that

> *if something gets delivered in a School of Nursing, then people perceive it as being a course for nurses and not relevant to them. So the opportunities are there, but are not necessarily being taken up.*
> (Director of Education and Training, NHSE A)

8.6.3 Rigidity within the HE sector

The power exerted by the distinctive professional bodies is reinforced and exacerbated by the departmental structure in many HE institutions. While the creation of overarching Schools or Faculties of Health represents a move away from this rigid structure, it is easy to see how one Director of Education and Training (C) considered that 'the academic structures reflect the tribes'. This respondent thought that the traditional departmental structure within HE limited its capacity to respond to the evolving priorities of the education commissioners:

> *You get the consortia chief execs really ... wanting to drive the agenda, commissioning development work that identifies the sorts of professionals they want, the commonalities. It's not necessarily that they want generic health care workers, but they want nurses where there's flexibility. ... There are certain things that might be done ... by a nurse or ... by an occupational therapist ... my real fear is that ... the higher education institutions are back in the past, in their little tribal groups and ... they're not in a position to respond, either because the structures prevent them ... or because they haven't made the conceptual link ... out of their boxes into something that's much more broadly focused ...* (Director of Education and Training, NHSE C)

This view was shared by the chief executive of an NHS Trust, and chair of a consortium within NHSE C who served on several institutional advisory committees involved in promoting multidisciplinary education. The following quotation provides a vivid illustration of the types of professional jealousies that pervade the system.

> *there's enormous resistance from within the faculties and schools to sharing lecturers, having common modules and mixing up classes, 'we're a medical school you know, we've been here a 100 years and we're not watering down ourselves for some namby pamby nursing school which was only formed yesterday'.* (Commissioner C)

8.7 Summary

The education commissioners who were interviewed perceived integrated workforce planning to be a significant driver for the development of multidisciplinary education. This type of educational provision is considered to

support changes in patterns of service delivery in health care. The transcript evidence suggests that multidisciplinary education is perceived to have more impact upon practice at post-registration level than at pre-registration level. Further, there is a perceived need for evidence-based research on the benefits of multidisciplinary education.

The respondents cited above identified a range of factors which they considered to facilitate or inhibit the development of multidisciplinary education. These are summarised below:

- 'clear guidance from the centre' is considered essential if multidisciplinary education is to develop successfully
- the consortia are considered to play a key role in its future development at local level
- the existence of separate training levies is perceived to inhibit its development
- 'collaborative commissioning' may be one way of surmounting the difficulties posed by the existence of separate training levies.
- the attitudes of professional bodies may inhibit the development of multidisciplinary education
- the departmental structure in many HE institutions may inhibit the development of multidisciplinary education.

9 Conclusion

9.1 Introduction

Our findings suggest that multidisciplinary education is widely perceived to facilitate and reinforce changes in working practices in the health and social services. Patients' interests are considered to be best served if different professional groups work together, and employ a range of skills— many of which are complementary or overlapping— in order to deliver a service which is both efficient and effective.

9.2 Perceptions of multidisciplinary education and practice

On balance, multidisciplinary education was considered by both course organisers and students to have a greater impact at post-registration level, or at a later stage in pre-registration curricula. It was perceived to have a positive impact on the development of personal and professional confidence; to enhance mutual understanding; to facilitate inter-professional communication; and to encourage students with clinical experience upon which to draw to reflect upon their practice. This latter point applied particularly to the post-registration students we interviewed. As such, their experience parallels that of the respondents who were learning collaboratively in the workplace. Respondents in both these groups considered that their personal and professional confidence had been enhanced; and that engaging in dialogue with other experienced professionals increased their understanding of both their own practice and value systems, and those of other professional groups. As a result, they felt empowered to change their practice, or to initiate change.

The pre-registration students, on the other hand, felt that they had not yet had time to develop their own professional role. This was their priority, and in some instances they seemed unclear as to the rationale for the inclusion of a multidisciplinary element in an essentially uni-professional degree course. Nor had they had sufficient clinical experience to envisage how they might draw upon the knowledge base and skills of other groups in the workplace.

9.3 Factors which promote multidisciplinary education

It is clear from the transcript evidence that the vast majority of course organisers and students were convinced of the potential benefits of introducing multidisciplinary education. They believed that collaborative practice was in the patients' interest, and that it reduced duplication of service delivery. The divergence of opinion related to whether it was best introduced at pre- or post-registration level.

Data from the interviews with education commissioners indicate that 'clear guidance from the centre', and, where possible, examples of good practice would facilitate the successful implementation and development of multidisciplinary

education. The consortia are considered to play a key role in its future development at local level.

The Phase 2 data suggest that if multidisciplinary initiatives are to have successful educational outcomes, course organisers and students need to develop a common sense of purpose and a clear understanding of the rationale for multidisciplinary education. The evidence suggests that committed individuals play a key role in the success of multidisciplinary initiatives. In addition, support from the host institution, and institutional structures which facilitated inter-departmental course development were considered essential if such initiatives were to be sustained and developed.

9.4 Factors which inhibit multidisciplinary education

The evidence suggests that multidisciplinary provision, particularly at pre-registration level, has been developed partly in response to opportunities which present themselves in individual institutions— and sometimes for reasons of expediency. The nature of provision is constantly evolving. Even within a single institution it is difficult to track how one form of provision (for example, a learning situation in which students from different professional groups come together to enhance their knowledge and understanding of particular elements of their professional practice) evolves towards another— where students work interactively in small groups, for example.

It is thus not surprising that respondents in the HE-based sites identified a range of logistical factors which they considered impeded multidisciplinary course implementation and development. These included compatibility of entry gates; an imbalance in student numbers from different professional groups finding suitable accommodation for large- and small-group teaching; access to library and IT facilities; and timetabling across groups with discrete, discipline-specific timetables.

In addition, respondents identified a range of external factors which they considered inhibited development of multidisciplinary education. We will deal briefly with the most significant of these.

The perceived need to maintain professional identity, standards and value systems is a theme that pervades much of the data. To varying degrees, course organisers and students saw this as conflicting with the perceived drive to 'go multidisciplinary'. This issue was also raised in the general practice sites, but was not such a significant issue in the data gathered in the A & E units.

Allied to the maintenance of professional standards is the role professional bodies play in maintaining distinctive professional cultures. The requirements of professional bodies in terms of the number of hours of clinical practice required also provided course organisers with logistical problems. These were exacerbated by the fact that validation cycles were unsynchronised. The existence of separate

levies for medical and dental education and training (MADEL) and non-medical education and training (NMET) was perceived to do little to promote attempts to break down the boundaries between professions and to facilitate educational initiatives involving a range of different professional groups. Nevertheless, the type of 'collaborative commissioning' outlined in Section 8 was suggested as one way of surmounting the difficulties posed by the existence of separate training levies.

9.5 Recommendations

9.5.1 Recommendations for course organisers

The evidence gathered in the course of this project indicates that multidisciplinary education is widely perceived to make a valuable contribution to professional development at both pre- and post-registration levels. However, the balance of evidence suggests that the perceived benefits of multidisciplinary education are more clearly discernible at post-registration level.

The development of multidisciplinary provision, particularly at pre-registration level is often piecemeal and may be described as 'opportunistic'. 'Product champions' in individual institutions play a key role in identifying opportunities and initiating multidisciplinary course development in their home institution. It is significant that in some cases, the success of an initiative was attributed to one individual's contribution. There is therefore the possibility that an initiative will not be sustained if a key individual moves on.

This *ad hoc* pattern of implementation may be successful in the short term. However, the absence of an overarching, strategic vision as regards the future development of such provision may ultimately compromise the degree to which such initiatives can be sustained in the longer term.

The following set of recommendations is designed to help pre-and post-registration course organisers overcome the pitfalls identified above.

Course organisers should

- make explicit the rationale for provision of multidisciplinary provision, particularly at pre-registration level.
- convey this rationale to the students as they embark upon the course, eg in course documentation and introductory sessions.
- set clear objectives which relate to how multidisciplinary education should evolve throughout pre-registration courses as a whole, and at what point they should begin.
- consider how the objectives for unidisciplinary and multidisciplinary elements might be mutually reinforcing and sustaining.
- honour pre-registration students' apparent desire to develop what they consider a profession-specific knowledge and skills base.

- make students aware of the degree of interdependence between the uni- and multidisciplinary elements of their course in order to increase their understanding of and commitment to multidisciplinary education.
- reflect further on the advantages and disadvantages of introducing multidisciplinary education at pre- and post-registration levels respectively.

9.5.2 Recommendations for policy-makers and education commissioners

It is widely acknowledged in the literature that many health professionals have complementary and overlapping skills which can be deployed in new ways in the patients' best interests.

This renewed emphasis on collaboration and teamwork may present new challenges for those in clinical practice. It also has clear implications for education commissioners and providers, who must ensure that workforce planning meets the changing demands of the service, and that practitioners are adequately prepared for their changing roles in health care delivery.

The transcript evidence suggests that there is a degree of ambivalence in how some health professionals view the impact of changes in the NHS. There is, for some, a very fine line between 'assuming new roles' and 'being shunted about'. There is also an apparent tension between enhancing one's professional status along unidisciplinary lines and breaking down boundaries by engaging in multidisciplinary education and practice. The evidence also suggests that there is some lack of clarity as to the rationale for its promotion.

We therefore recommend that

- policy-makers and education commissioners make explicit the rationale for the promotion of multidisciplinary education
- policy-makers make explicit the policy for promoting multidisciplinary education and practice
- policy-makers define terms used to describe various forms of 'multidisciplinary' provision
- policy-makers specify aims and objectives for each type of initiative
- policy-makers convey strategic policy on multidisciplinary education to education commissioners by providing examples of good practice in their local area
- education commissioners clearly define roles and responsibilities in relation to the promotion of multidisciplinary education
- policy-makers and commisioners reflect upon the advantages and disadvantages of introducing multidisciplinary education at pre- and post-registration levels respectively
- policy-makers in higher education consider the impact of the Research Assessment Exercise (RAE) on multidisciplinary research and practice.

References

ARESKOG, N (1988) The need for multiprofessional health education in undergraduate studies. *Medical Education*, 22, pp251-2.

ARESKOG, N (1992) The new medical education at the Faculty of Health Sciences, Linköping University— a challenge for both students and teachers. *Scandanavian Journal of Social Medicine*, 2, pp1-4.

ARESKOG, N (1994) Multiprofessional education at the undergraduate level, in SOOTHILL, K, MACKAY, L and WEBB, C (eds) *Interprofessional Relations in Health Care*. London: Edward Arnold.

ATKINSON, JM & HERITAGE, JC (eds) (1984) *Structures of Social Action*. Cambridge: Cambridge University Press.

BARR, H (1994) NVQs and their implications for inter-professional collaboration, in LEATHARD, A (ed) *Going Inter-Professional. Working Together for Health and Welfare*. London: Routledge.

BARR, H and WATERTON, S (1996) *Interprofessional Education in Health and Social Care in the United Kingdom*. Report of Survey commissioned by the Centre for the Advancement of Interprofessional Education. London: CAIPE.

BEATTIE, A (1995) War and peace among the health tribes, in SOOTHILL, K, MACKAY, L and WEBB, C (eds) *Interprofessional Relations in Health Care*. London: Edward Arnold.

BECHER, T (1989) *Academic Tribes and Territories: intellectual enquiry and the culture of disciplines*. Buckingham: The Society for Research into Higher Education & Open University Press.

BIGGS, S (1993) User participation and interprofessional collaboration in community care, *Journal of Interprofessional Care*, Vol 7, No 2, pp 1519.

BISITS, A & HAERTSCH, M (1994) Learning together. Midwives and medical students, *Joint Medical Newsletter*, University of Newcastle, Australia.

BRYMAN, A & BURGESS, RG (1994) (eds) *Analyzing Qualititative Data*. London: Routledge.

CAIPE Bulletin, No 12, Winter 1996.

CARPENTER, J (1995a) Interprofessional education for medical and nursing students: evaluation of a programme, *Medical Education*, 29, pp 265-72.

CARPENTER, J (1995b) Doctors and nurses: stereotypes and stereotype change in interprofessional education, *Journal of Interprofessional Care*, Vol 9, No 2, pp 151-61.

CARPENTER, J and HEWSTONE, M (1996) Shared learning for doctors and social workers: evaluation of a programme, *British Journal of Social Work*, 26, pp239-257.

CASTO, M (1994) Interprofessional work in the USA: education and practice, in LEATHARD, A (ed) *Going Interprofessional. Working Together for Health and Welfare*. London: Routledge.

CASTO, M and JULIA, M (1994) *Interprofessional Care and Collaborative Practice*. Pacific Grove: Brooks/Cole Publishing.

CLARK, PG (1993) A typology of multidisciplinary education in gerontology and geriatrics: are we really doing what we say we are? *Journal of Interprofessional Care*, Vol 7, No 3, pp 217-227.

CVCP (1997) *Results of CVCP Survey on Inter-professional Education and Training in The Health Professions*. London: CVCP.

DEPARTMENT OF HEALTH (1989) *Working for Patients*. London: HMSO (Cm 555).

DEPARTMENT OF HEALTH (1996) *The National Health Service. A Service with Ambitions*. London: HMSO (CM 3425).

DEPARTMENT OF HEALTH (1997) *Learning Together. Professional Education for Maternity Care*. 'Representation' of a conference on multi-professional education held in November 1996.

DOWELL, J, HUBY, G & SMITH, C (1995) *Scottish Consensus Statement on Qualitative Research in Primary Health Care*. Dundee: Tayside Centre for General Practice.

FORMAN, D, JONES, I and MORLEY, J (1994) Shared management learning at the University of Derby, *Journal of Interprofessional Care*, Vol 8, No 3, pp 275-78.

GOBLE, R (1994) Multi-professional education in Europe, in LEATHARD, A (ed) *Going Inter-Professional. Working Together for Health and Welfare*. London: Routledge.

GREENE, RJ, CAVELL, GF and JACKSON, SHD (1996) Interprofessional clinical education of medical and pharmacy students, *Medical Education*, 30, pp 129-33.

HEVEY, D (1992) The potential of National Vocational Qualifications to make multidisciplinary training a reality, *Journal of Interprofessional Care*, Vol 6, No 3, pp 215-21.

HILTON, RW (1995) Fragmentation within interprofessional work. A result of isolationism in health care professional education and the preparation of students to function only in the confines of their own disciplines, *Journal of Interprofessional Care*, Vol 9, No 1, pp 33-40.

HILTON, RW, MORRIS, DJ and WRIGHT, AM (1995) Learning to work in the health care team, *Journal of Interprofessional Care*, Vol 9, No 3, pp 267-74.

HUGMAN, R (1995) Contested territory and community services: interprofessional boundaries in health and social care, in SOOTHILL, K, MACKAY, L & WEBB, C (eds) *Interprofessional Relations in Health Care*. London: Edward Arnold.

In the Patient's Interest. Multi-Professional Working Across Organisational Boundaries. A Report by the Standing Medical and Nursing & Midwifery Advisory Committees, 1996.

JONES, R (1986) *Working Together – Learning Together*. Occasional Paper No 33. Exeter: Royal College of General Practitioners.

LEATHARD, A (1992) Interprofessional developments at South Bank Polytechnic, *Journal of Interprofessional Care*, Vol 6, No 1, pp 17-23.

LEATHARD, A (ed) (1994) *Going Inter-Professional. Working Together for Health and Welfare*. London: Routledge.

LITTLE, JW (1990) Teachers as colleagues, in LIEBERMAN, A (ed) *Building a Professional Culture in Schools*. New York: Teachers College Press.

LYNCH, BL (1984) Co-operative learning in interdisciplinary education for the allied health professions, *Journal of Allied Health*, May, pp 83-9.

MACKAY, L (1992) Working and co-operating in hospital practice, *Journal of Interprofessional Care*, Vol 6, No 2, pp 127-31.

MACKAY, L , SOOTHILL, K & WEBB, C (1995) Troubled times: the context for interprofessional collaboration?, in SOOTHILL, K, MACKAY, L & WEBB, C (eds) *Interprofessional Relations in Health Care*. London: Edward Arnold.

MACLEOD, RD and NASH, A (1994) Multidisciplinary education in palliative care, *Journal of Interprofessional Care*, Vol 8, No 3, pp 283-88.

MATHIAS, P & THOMPSON, T (1997) Preparation for interprofessional work: trends in education, training and the structure of qualifications in the United Kingdom, in ØVRETVEIT, H, MATHIAS, P & THOMPSON, T (eds) *Interprofessional Working for Health and Social Care*. London: Macmillan.

McMICHAEL, P and GILLORAN, A (1984). *Exchanging Views: courses in collaboration*. Edinburgh. Moray House College of Education.

Multiprofessional Education and Training. A Report for the NHS Executive based on a National Seminar facilitated by the King's Fund Centre for Leadership and Change in conjunction with a National Scoping Study prepared by the Centre for the Development of Nursing Policy and Practice, University of Leeds, March 1997.

Multiprofessional Working and Learning: sharing the educational challenge. A SCOPME Working Paper for Consultation, January 1997. London: SCOPME.

NOLAN, (1995) Towards an ethos of interdisciplinary practice, *British Medical Journal*, Vol 312, No 11, May, pp 305-306.

NHS Executive Letter (EL) (95) 96 (23 August 1995)

NHS Executive Letter (EL) (96) 46 (17 June 1996)

NHS document *Primary Care: the future* (June, 1996)

PIRRIE, A, WILSON, V & STEAD, J (1997). Evaluating multidisciplinary education: work in progress, *Journal of Interprofessional Care* , Vol 11, No 2, pp 228- 229.

POULTON, BC & WEST, MA (1993) Effective multidisciplinary teamwork in primary health care, *Journal of Advanced Nursing*, 18, pp 918-925.

Promoting Collaborative Practice. Joint Statement by the Councils for the College of Occupational Therapists, Chartered Society of Physiotherapy, College of Speech and Language Therapists, nd.

RAWSON, D (1994) Models of interprofessional work. Likely theories and possibilities, in LEATHARD, A (ed) *Going Interprofessional. Working Together for Health and Welfare*. London: Routledge.

SHAW, I (1993) The politics of interprofessional training–lessons from learning disability, *Journal of Interprofessional Care*, Vol 7, No 3, pp 255-62.

SIMONS, H (1981) Conversation piece: the practice of interviewing in case study research, in Adelman, C (ed) *Uttering and Muttering*. London: Grant McIntyre.

STORRIE, J (1992) Mastering interprofessionalism - an enquiry into the development of Masters Programmes with an interprofessional focus, *Journal of Interprofessional Care*, Vol 6, No 3, pp 253-9.

Students' Guide to Graduate Studies in the United Kingdom (1995).

STRAUSS, A (1987) *Qualitative Analysis for Social Scientists*. Cambridge: Cambridge University Press.

The Future of Funded Research in Scottish Education. Report of a Scottish Educational Research Association (SERA) Seminar, March 17 1997. (Unpublished report.)

The Future Healthcare Workforce. Report of the Project Steering Group (1996).

TOPE, R (1996) *Integrated Interdisciplinary Learning between the Health and Social Care Professions: a feasibility study*. Aldershot: Avebury.

Universities and Colleges Admissions Service (UCAS) Handbook (1995).

WALBY, S, GREENWELL, J, MACKAY, L & SOOTHILL, K (1994) *Medicine and Nursing. Professions in a Changing Health Service*. London: SAGE.

WEINSTEIN, J (1994) *Sewing the Seams for a Seamless Service. A Review of Developments in Interprofessional Education and Training*. London: CCETSW.

WILMOT, S (1995) Professional values and interprofessional dialogue, *Journal of Interprofessional Care*, Vol 9, No 3, pp 257-65.

WILSON, V (1997) Focus groups: a useful qualitative method for educational research?, *British Educational Research Journal*, Vol 23, No 2, pp 209-224.

WORLD HEALTH ORGANIZATION (WHO) (1988) *Learning Together to Work Together for Health*. Technical Report Series 769. Geneva: WHO.

Appendix 1: Methodology

1.1 Methodology in Phase 1

The term 'database' evokes a reliable and objective state of affairs. The reality is rather different. The fact is that databases date very quickly. The key players in the development of multidisciplinary courses move on, and the initiatives associated with them gradually wither away, or change substantially in terms of the base disciplines represented or student numbers. In addition, there are often significant differences between courses as documented and as described by key informants within the respective institutions.

We included initiatives that met the following selection criteria, namely that they

- **involved at least two health care professions**
- **involved those working in primary care or hospital-based settings**
- **were either at pre-or post-registration/under-or postgraduate level**
- **were of at least 20 days duration**
- **were either accredited or unaccredited**
- **were geographically dispersed**
- **had been in existence for a minimum of two years.**

The first criterion relates to our working definition of the term 'multidisciplinary' which describes a situation in which students from different professional groups come together to enhance their knowledge and understanding of particular elements of their professional practice.

The second two relate to what the CAIPE surveys had indicated about the pattern of multidisciplinary educational provision: viz, that it involved those working in both primary care and in hospitals; and that although the bulk of provision was at the post-registration/postgraduate level, there were some initiatives at pre-registration/undergraduate level. With regard to the fourth criterion, it is important to bear in mind that the survey phase of the research was primarily intended to inform our selection of case studies. We thus had to ensure we only included in the survey initiatives which were of sufficient duration to enable us to conduct the fieldwork. (Barr and Waterton (1996) report locating c 112 initiatives of more than 21 days duration. A third of the initiatives reported lasted less than two days.) And as far as our last criterion is concerned, we recognised that it might prove impossible to focus exclusively on initiatives which had been running for a minimum of two years. One might hypothesise that the recent growth of provision in this area is in large measure due to the fact that the NHS Executive in England is promoting inter- or multidisciplinary education.

Once we had agreed the selection criteria for inclusion in the survey and determined the professional groups to be included, we collected data through four

complementary channels in order to provide as comprehensive a map of multidisciplinary provision as possible. These were

- literature review
- other surveys of multidisciplinary provision (CAIPE and the Committee of Vice-Chancellors and Principals (CVCP))
- focus group meeting
- documentary analysis and telephone survey

The respective roles of each investigative strand are detailed below, as is the manner of their interaction.

Literature review

The literature review informed our thinking on the use of terminology (see Section 4). It also allowed us to explore the contextual issues surrounding the notions of learning together and working together; and discuss the case for and against multidisciplinary education. It drew our attention to which groups were engaging in some form of shared learning; the nature of such initiatives; and which of these had already been evaluated.

The CAIPE survey of multidisciplinary provision

The difficulties of identifying providers of multidisciplinary education may partly explain the low response rate (20%) to the survey conducted by CAIPE in 1993-4. In contrast, the response rate for the follow up questionnaire was 80%. On the basis of the CAIPE experience, we decided against a questionnaire survey. And as the main focus of the study was on the qualitative work in Phase 2, it was agreed that the research team should seek access to the existing CAIPE database. This contained information on 455 initiatives, with more detailed information (such as would enable us to identify case studies) on 200. Due to technical problems at CAIPE, access to the database initially proved impossible, but the research team was able to read the 184 responses to the second questionnaire. (For a detailed account of the methodology of the CAIPE survey, see Barr and Waterton, 1996.) From this raw data, we were able to extract 109 instances of multidisciplinary educational initiatives. These were augmented by others derived from the literature and from the telephone survey. The research team was later able to compare its database with entries from the re-constituted CAIPE database.

The CVCP survey of multidisciplinary provision

In 1996 the Committee of Vice-Chancellors and Principals (CVCP) carried out a survey of institutions' involvement in the provision of what it terms 'inter-professional' education and training in the health professions. The results were made available in July 1997. These were read by the research team, who cross-checked the findings with those which had emerged from the amended database based on the CAIPE survey data.

Preliminary focus group meeting

The main purpose of the focus group meeting, was to elucidate further the use of terminology (see Section 4) and to explore stakeholders' perceptions of a variety of issues relating to 'multi' and 'inter' forms of learning and working. The meeting provided a great deal of valuable information about current initiatives. The discussion also provided invaluable insights into stakeholders' views on the context in which multidisciplinary learning and working had evolved. We draw on the focus group discussion throughout this report.

Documentary analysis and telephone survey

Our research has shown that there is a lack of documented references to multidisciplinary provision in health care. Information contained in prospectuses and course outlines was not sufficiently detailed to enable us to identify case studies. This material was presented in a non-standard format, making comparison impossible. Our enquiries revealed that although courses were in theory open to a wide range of health care professionals, a much narrower range was in fact represented. From the standardised written sources available to us, namely the *Universities and Colleges Admissions Service (UCAS) Handbook* (1996) and the *Students' Guide to Graduate St[udies in the United Kingdom* (1995) we compiled a list of 107 further/higher educ[ation institutions offering at least one course for one of the selected groups. Of these institutions, forty-four already featured on the database generated from the raw data from the second CAIPE questionnaire. The researchers telephoned selected departments from the remaining sixty-three institutions and made inquiries as to the nature of the multidisciplinary provision on offer. This exercise generated details of a further fifty-five initiatives which were subsequently entered on the database.

The telephone survey also highlighted some of the difficulties of attempting to map provision in this area. It proved impossible to locate any individual who could give a comprehensive account of multidisciplinary initiatives in a particular institution. And in many inst[itutions there four or five departments within a particular School or Faculty [and] conceivably have offered courses of interest. In most instances, we picked one at random. Enhanced communication between departments would facilitate more effective promotion of the multidsicplinary opportunities on offer.

1.2 Methodology in Phase 2

Data gathering

We opted for a combination of individual interviews and focus group meetings. We aimed to conduct individual interviews with course organisers. This was not possible in three sites (CS1/1, CS2/3 and CS5/10). We arranged focus groups with students in order to reach larger numbers. The focus group data complemented the individual interviews by enabling the researchers (and the participants) to compare and contrast differences and commonalties in their views and experiences. As Barbour points out 'one of the important strengths of focus

groups is that they enable the researcher to observe and record interaction between participants (Dowell, Huby and Smith, 1995, p 77; see also Wilson, 1997). In the case of the students, they also enabled the more reticent members of the group to express their opinions.

Data analysis

Bryman and Burgess (1994) describe the process of categorisation as 'the task of fitting data and concepts together in such a way that conceptualisation is under constant revision.' (p 5) Some of our categories were predetermined by the interests of our funders: for example, perceptions of effectiveness; facilitators; and inhibitors. Yet our understanding of these concepts developed as data gathering progressed, and we were able further to specify our initial set of broader categories (Strauss, 1987). We then applied these revised categories to our assembled transcripts. This necessitated extensive discussion between the research team, thus ensuring a reasonable measure of inter-subjective reliability.

We then used a computer package (Hypersoft) to assist us in organising copious amounts of data (c 300 pages). This programme allowed us to code similar data segments with the same tag, and to extract these and subject them to further analysis. This final stage was done by hand, and again involved extensive discussion amongst researchers.

Notes

1 As others have demonstrated (Leathard 1992; Barr & Waterton 1996) mapping multidisciplinary educational initiatives for health care professionals is not an easy task. Storrie (1992) points out that 'tracking down [opportunities for shared learning] that span the discipline or occupational categories is not straightforward. No directory provides a guide to such programmes....' (p255)

2 Because of the way the information is presented, it is not possible to arrive at exact figures. See Barr and Waterton (1996) p 24.

3 See, for example, NHS Executive Letter (EL) (95) 96 (23 August 1995); EL (96) 46 (17 June 1996); NHS document *Primary Care: the future* (June, 1996). See also Department of Health (1996) A *Service with Ambitions*. London: HMSO (CM 3425).

Appendix 2: Overview of data collection in the fourteen sites

CS reference	Level (UG, PG, Pre-reg, Post-reg)	Professions represented	Data gathered
CS1/1	UG/Pre-reg HE-based	Medicine/Nursing	1 group meeting with course organisers
CS1/2	UG//Pre-reg HE-based	Medicine/Nursing PAMs	5 interviews with course organisers
CS2/3	UG/Pre-reg HE-based	Nursing/PAMs	1 group meeting with course organisers 1 student focus group
CS2/4	UG/Pre-reg HE-based	Nursing/PAMs	3 interviews with course organisers 2 student focus groups
CS3/5	PG/Post-reg HE-based	Medicine/Nursing PAMs	4 interviews with course organisers 2 student focus groups
CS3/6	PG/Post-reg HE-based	Health and Social Care Professions	4 interviews with course organisers 1 student focus group
CS4/7	PG/Post-reg HE-based	Medicine/Nursing PAMs/Voluntary Sector/NHS management	3 interviews with course organisers 1 student focus group
CS4/8	PG/Post-reg HE-based	Nursing/PAMs	1 interview with course organiser 1 group meeting with course organisers 1 student focus group
CS5/9	PG/Post-reg HE-based	PAMs/Nursing/ Social Work	3 interviews with course organisers 1 student focus group
CS5/10	PG/Post-reg HE-based	Medicine/Nursing PAMs	1 group meeting with course organisers 1 student focus group
CS6/11	Post-reg Work-based A & E	Medicine/Nursing	3 interviews (consultant, course organiser, specialist registrar) 1 focus group nurses
CS6/12	Post-reg Work-based A & E	Medicine/Nursing	5 interviews (consultant, senior registrar, SHO, senior charge nurse, nurse manager)
CS7/13	Post-reg Work-based General Practice	GPs/health visitors/ midwives/nurses/PAMs	5 interviews (GP, nurse consultant, health visitor, treatment room nurse, clinical services manager)
CS7/14	Post-reg Work-based General Practice	GPs/health visitors/ midwives/nurses/PAMs	6 interviews (GP, practice nurse, practice manager, midwife, health visitor, physiotherapist)
	Summary Pre-reg sites 4 Post-reg sites 6 A & E sites 2 GP sites 2 **Total** 14		**Summary** Individual interviews 42 Focus groups (course organisers) 5 Focus groups (students) 10 **Total** 57

Appendix 3: Patterns of multidisciplinary provision

CS1/1 **Undergraduate/pre-registration (BSc/MBChB)**
This site is at an early stage in phasing in some multidisciplinary elements throughout nursing and medicine. This commenced in 1997. Some shared teaching in communication skills and CPR is being developed as well as a shared clinical skills teaching facility.

CS1/2 **Undergraduate/pre-registration (MBChB, BN, BSc)**
Initiatives at this site are at an early stage having begun in 1997. Some multidisciplinary education for nurses, medical and dental students and PAMs is offered. In addition, within the development of a new medical course structure, there are plans to develop multiprofessional Special Study Modules for final year students across departments. A pilot two-day foundation course in health care (small group/interactive) and a pilot communication skills course for the new medical curriculum are also new developments.

CS2/3 **Undergraduate/pre-registration (BSc/BA)**
At this site, there are some 'shared learning' units, particularly in first and third years for nursing and PAMs. The course is a three year one and began in 1995.

CS2/4 **Undergraduate/pre-registration (BSc)**
This site provides some 'shared learning' for nursing and PAMs. They are organised in modules in first year of study, four of which are compulsory. Began in 1992.

CS3/5 **Postgraduate/post-registration (MSc)**
This site provides a modular, part-time course over 2 years for a variety of medicine/nursing/PAMs. It is a taught or part-taught route plus dissertation and is interactive in approach. Began in 1995.

CS3/6 **Postgraduate/post-registration (MSc)**
This site offers a part-time/flexible pattern of study(modular), over 2-5 years for health and social care professions and has been in existence since 1991.

CS4/7 **Postgraduate/post-registration (MSc)**
This is a one year full-time or 2 years part-time course (modular) for participants from a background in medicine, nursing, the voluntary sector and NHS management. This course began in 1988.

CS4/8 **Postgraduate/post-registration (MA)**
This site provides a part-time course over 2 years for nursing/PAMs/voluntary sector. It is modular in format and the first year is taught. It has been running since 1989.

CS5/9 **Postgraduate/post-registration (MSc)**
Since 1997 this site has provided a modular, part-time course over 2-5 years for nursing, PAMs and social work students.

CS5/10 **Postgraduate/post-registration (MSc)**
This site provides a part-time course over 2 years plus dissertation for medicine, nursing and PAMs. The course moved over to a 'shared learning' base where other students are involved in parts of the units. It is modular in structure with a core Masters unit. It began in 1990.

CS6/11 **Work-based**
ATNC(Advanced Trauma Nursing Course) and ATLS(Advanced Trauma Life Support) courses in A & E unit of teaching hospital.

CS6/12 **Work-based**
ATLS course in A & E unit of teaching hospital.

CS7/13 **Work-based**
Various primary care initiatives in General Practice site in inner city location.

CS7/14 **Work-based**
Various primary care initiatives in General Practice site in provincial city.

Appendix 4: Topic guides

Topic guide for interviews with course organisers in pre- and post-registration sites (Sites CS1/1, 1/2, 2/3, 2/4, 3/5, 3/6, 4 /7, 4/8, 5/9 and 5/10)

1 **Can you tell me how the course came about and who it is aimed at?**

We're interested a) in the thinking behind the course, in terms of views about the effectiveness of multidisciplinary education; b) logistical details, in terms of where the initial impetus came from. Was it from a particular department? Was it in response to perceived institutional pressures? Was it in response to a government initiative? etc

2 **How's it working?**
What's going well?
What's not going so well?

Here we get down to details. Issues such as which staff are involved, how committed they are, and why, might come up here. So might information about the student population: where are they coming from (in terms of base discipline and expectations) By asking what's going well/not well, we'll get at staff's expectations of what the course would provide and avoid generating pious statements of the 'learning more about each other' type.

3 *(If appropriate)*
Have you noticed any changes in students' attitudes/behaviour?

Again, this might generate data on staff's perceptions of students initial expectations. It might also generate data on whether the staff think the course has had any impact on their behaviour *during the course*. We can't invite speculation on what might happen when post-reg students return to practice.

4 **What do you see for the future?**

- for this particular course
- for the principle of multidisciplinary education

A sweep-up question, which might give us some more insights into their views on the principles of multdisciplinary education, and perhaps also on its perceived effectiveness.

Topic guide for interviews with students at pre- and post-registration sites (Sites CS1/1, 1/2, 2/3, 2/4, 3/5, 3/6, 4 /7, 4/8, 5/9 and 5/10)

(Ask those present to introduce themselves)

1 **Can you tell us why you're on the course?**

Here we're looking for students' views about the effectiveness of multidisciplinary education. We're also interested in important logistical differences. Is the course compulsory for some students and optional for others? Do funding arrangements differ?

2 **What do you hope to get out of it?**

Try to probe behind pious statements about finding out more about each others' roles, increasing mutual understanding etc. One key question is *why* people feel such things are necessary. Where are they coming from?

3 **How's it working out?**
What's going well?
What's not going so well?

Here we get down to details. Issues such as differences in students' level of commitment, and how these relate to their base discipline, may come up. So might their views of the level of staff commitment, and how the course is viewed by their 'parent' discipline. By asking what's going well/not well, we'll get at students' expectations of what the course would provide and avoid generating pious statements of the 'learning more about each other' type.

4 **Is it what you expected?**

This should sweep up anything left over from q 1.

(For those with work experience)

5 **What would you like to put into practice?**

This might generate information about which elements of multidisciplinary education students value most.

6 **What did your colleagues think about your coming on this course?**

Probe for status/hierarchy issues and general attitudes

7 **What do you think you'll be able to do?**
What have you been able to put into practice during your placement?

What, if any, barriers to multidisciplinary working do people experience in the workplace?

Topic guide for work-based sites (CS6/11, 6/12, 7/13 and 7/14)

1 **What professions do you regularly work with?**

We're interested in the quality of communication and co-operation between groups. How formal/informal is it? How does it relate to individuals' positions in their own professional hierarchy, and to the status of a particular professional group? Is it task-oriented?

2 **Do you perceive a clear boundary between your own and other professions?**

More importantly, do they feel they *need* to in order to work together effectively (the existence of protocols may play a role here). We might get some insights into peoples' attitudes towards multidisciplinary endeavour. How *confident* do they feel? Do they feel threatened by it? Do they feel that their professional status is enhanced or diminished by it?

3 **Can you describe a particular occasion when you thought you worked well together?**

This might give us some information about the types of situation where teamwork is appropriate/effective. It might also tell us something about the specificity of the tasks team members are performing; how effectively the members of the team communicate; who takes the lead role; whether or not there are set protocols. If at all possible, try to find out whether they think that teamwork is particularly important in certain areas of their work. Compare and contrast roles in acute situations, and situations like breaking bad news.

4 **And another time when things didn't go so well?**

This might give us some information about the types of situation where teamwork is inappropriate/ineffective. Were there communication difficulties? Confusion about roles?

5 **Can you identify occasions when you have learned together?**

Post-qualification. Either in the work-place or outside it. The distinction between formal/informal may not be helpful, as some staff may perceive what is intended to be informal, opportunistic on-the-job training as 'formal'. What we getting at is the contrast between work-based and a time-out for a course.

Topic guide for interviews with commissioners

We use the term 'multidisciplinary' to describe a situation in which students from different professional groups come together to enhance their knowledge and understanding of particular elements of their professional practice.

1 **What is the current official policy on purchasing multidisciplinary education for health care professionals?**

Which professions are involved, and at what level, i.e. pre- or post- registration?
Consistency and coherency?
Degree of compulsoriness?
Degree of commitment towards implementation of multidisciplinary working practices

2 **What factors influence policy?**

3 **What's happening in practice?**

Which professions are involved, and at what level, i.e. pre- or post- registration?
How are decisions made?
How are these put into practice?

4 **What do you perceive as the strengths of multidisciplinary education?**

5 **What do you perceive as the weaknesses of multidisciplinary education?**

6 **What factors promote the development of multidisciplinary education?**

7 **What factors inhibit the development of multidisciplinary education?**

8 **Where do you see multidisciplinary education going in the future?**

Topic guide for interviews with education and training officers in NHSEs

We use the term 'multidisciplinary' to describe a situation in which students from different professional groups come together to enhance their knowledge and understanding of particular elements of their professional practice.

1 **What is the current official policy on multidisciplinary education for health care professionals?**
Different levels of policy (DOH/NHSE/Trusts)
Consistency and coherency?
Degree of compulsoriness?

2 **What's happening in practice?**
Is this monitored?

3 **What factors are promoting multidisciplinary education?**
To what extent is it supported by Trust managers?
To what extent is it supported by the professions? (professional bodies/practitioners/educators)

4 **What factors are inhibiting it?**

5 **What do you perceive as the strengths of multidisciplinary education?**
Subject/pre-or post-/combination of professions/task-specific?

6 **What do you perceive as the weaknesses of multidisciplinary education?**

7 **Where do you see it going in the future?**

Appendix 5: Coding framework

Prefix	ST = STAFF SU = STUDENTS WB= WORK-BASED	
Contacts	CON	Range of professionals normally work with
	CON/L	Liaison
Course	C/DEV	Course development/personal history
	C/PART	Course/participants/prof groups *(actual/putative)*
	C/STRUC	Course structure *(includes details on modules, timetabling, etc)*
Development	DEV	Development activity (in-house)
Effectiveness	EFF/C	communication/networking
	EFF/IP	impact on practice/challenging assumptions
	EFF/MU	mutual understanding/breaking down boundaries
	EFF/PPC	professional/personal confidence/career advancement
	EFF/PR	pre-post-registration
	EFF/N	Effectiveness (outcomes)/negative outcome
Facilitators	FAC/EI	extra institutional
	FAC/I	institutional *(support from heads of school, support for members of staff, protected time)*
	FAC/PP	personal/professional *(change agents 'product champions' /positive experiences of MD)*
Future	FUT	Future developments
Inhibitors	INH/EI	extra institutional
	INH/INN	innate inhibitors. Internal logic*(lack of clarity about defs/ 'need to avoid too much specialisation)*
	INH/INS	institutional *(dep. rivalries/lack of support/financial constraints/resistance/student mix)*
	INH/PP	personal/professional *(professional boundaries)*
Miscellaneous	MISC	
Models	MOD/EL	Experiential learning
	MOD/ISL	Interactive shared learning
	MOD/PM	Practice-meeting *(for educational purposes)*
	MOD/SST	Selective shared teaching
	MOD/ST	Shared teaching
	MOD/TW	Teamwork
Professional Boundaries	PB/N	Prof boundaries/roles *(negative/limiting)*
	PB/P	Prof boundaries/roles *(positive/defining)*
Rationale	RAT	Reasons for developing multidisciplinary education *(topic driven/viability/patterns of health care delivery)* Justification, explanation for planning and doing multidisciplinary education.

BEST COPY AVAILABLE

Appendix 6a: Feedback summary

(Ref No for office use only)

This is a summary of the issues which have emerged from the analysis of interview data from the case-studies. We would be most grateful if you could take time to consider the following and indicate your views in the column provided. Your responses will remain confidential.

Our general heading is:	We intend to discuss:		What do you think of this?
Models	We have derived an initial typology of forms of multidisciplinary educational provision. The first three refer to institution-based case studies. The last three to work-based sites. The salient features of each 'model' are described below:		
Institutional	• 'Shared teaching'	Large-scale didactic format, where an element of a course designed for a specific group is delivered to a wide range of students from different health care backgrounds.	**Comments:**
	• 'Selective shared teaching'	Large-scale didactic format, where an element of a course is designed for a range of groups and delivered to selected groups of students from different health care backgrounds.	
	• 'Interactive shared learning'	Small-group format, where students from different health care backgrounds enter into an exchange which may or may not be task-based.	
Work-based	• 'Teamwork'	This is variously expressed in the data as 'working as a team', 'working together', 'we are a team' or 'working cohesively'.	
	• 'Practice-meeting'	Formal or informal, planned or ad hoc, for educational purposes, involving more than one group of health care professionals.	
	• 'Experiential learning'	Learning by doing or by watching others in the workplace.	
What is the reason for developing multidisciplinary education?	Is it in response to • strategic policy initiatives? • institutional factors? (eg the need to attract greater numbers of students) • changing patterns of health care delivery? (towards a primary care-led NHS) • the requirements of the subject area?		**Do you think that these cover the main issues?** **Yes:** **No:** **Not applicable:** 77 **Comments:**

76

Our general heading is:	We intend to discuss:	What do you think of this?
What is the evidence for the effectiveness of multidisciplinary education?	• does it promote or inhibit mutual understanding between professionals/students? • does it dismantle or reinforce professional boundaries? • does it enhance or limit professional and/or personal confidence? • does it promote or inhibit career advancement? • does it have a positive or negative impact on practice? • does it challenge or reinforce existing assumptions about ways of working? • does it promote or inhibit collaboration and communication? • is it more or less effective at pre-registration level? • is it more or less effective at post-registration level?	**Do you think that these cover the main issues?** **Yes: No: Not applicable:** **Comments:**
What are the factors which facilitate the development of multidisciplinary education?	What are the 'institutional' facilitators? (at faculty/department/specialty/practice level) Are these related to • various forms of support? (staffing, financial, development time) • recruitment? • any other relevant factors which emerge. What are the 'extra institutional' facilitators? Are these related to • professional bodies? • course validation? • funding arrangements? • any other relevant factors which emerge. What are the personal or professional factors which promote multidisciplinary education? • appointment of staff with specific responsibilities for the development of multidisciplinary education? ('change agents') • committed members of staff? ('product champions') • positive prior experiences of multidisciplinary education/working practices?	**Do you think that these cover the main issues?** **Yes: No: Not applicable:** **Comments:**

BEST COPY AVAILABLE

Our general heading is:	We intend to discuss:	What do you think of this?
What are the factors which inhibit the development of multidisciplinary education?	What are the 'institutional' inhibitors? (at faculty/department/specialty/practice level) Are these related to • lack of support? • financial constraints? • resistance to change? • range of participants? • any other relevant factors which emerge. What are the 'extra institutional' inhibitors? Are these related to • professional bodies? • course validation? • funding arrangements? • any other relevant factors which emerge. What are the personal or professional limiting factors? Are there inherent tensions in multidisciplinary provision? (relating to coherence, inclusiveness, internal consistency)	**Do you think that these cover the main issues?** **Yes: No: Not applicable:** **Comments:**

Any final comments:

80

81

Please indicate the type of response: individual collective

Please return this form in the pre-paid envelope provided by Monday, December 1. Any further enquiries to Anne Pirrie or Sheila Hamilton, SCRE, 15 St John Street, Edinburgh EH8 8JR. Tel: (0131) 557-2944; Fax (0131) 556-9454; E-mail:Anne.Pirrie@scre.ac.uk, Sheila.Hamilton@scre.ac.uk.

Appendix 6b: Covering letter for feedback summary

November 1997

Dear [salutation]

Multidisciplinary Education in Health Care

We would like to thank you once again for participating in the above study. We have conducted a total of X individual interviews and X focus group meetings involving course organisers and students in ten higher education institutions throughout the UK. We have also interviewed practitioners in four work-based sites.

We are now in the process of analysing the interview transcripts. In order to do this, we have devised a set of analytical categories (see enclosed summary). These are broadly descriptive, and move beyond a mere statement of facts (such as numbers of students, structure of course, the range of professions or occupations represented or collaborating in the workplace, etc) to encompass information about a range of issues, including the rationale for the development of multidisciplinary education; contextual factors which facilitate or inhibit its implementation; the intentions and meanings that pervade such initiatives; and their subsequent evolution. There is also a separate section outlining the range of provision we have identified.

In the spirit of collaborative enquiry, we would like to invite you, as a representative of those interviewed in your case-study, to comment upon this analytical framework. You may choose to share this with some of your colleagues who were also interviewed. If you do make a collective response, please indicate this in the space provided on the form.

We would emphasis that we are asking you to comment upon its validity, and upon any salient omissions, not upon whether or not a particular statement applies to your case. We also ask you to bear in mind that the range of cases is very diverse, and includes work-based examples as well as pre- and post-registration provision in higher education institutions. If you feel you are not in a position to comment, please indicate so by ticking the 'Not applicable' box.

Thank you for taking the time to help us once again. Please return the form in the pre-paid envelope provided by **Monday, December 1**. We look forward to hearing you .

Yours sincerely

(Dr) Anne Pirrie
Research Officer

Appendix 6c: Summary of feedback responses

Feedback forms were sent to the lead contact in each site asking for comment on the broad analytical framework which we had devised. We were very pleased with the good response to this exercise, with 14 out of 16 lead contacts returning the forms. (In two sites, feedback forms were sent to two individuals because of shared teaching across departments). Of the 14 forms returned, 12 indicated in the box provided that they were completed by individuals, one was a collective response and one did not answer this section. The two sites which did not respond were the General Practice ones.

While some responses were confined to a general indication of views through the ticked boxes, many gave further written comment in each headed section. These comments were most helpful and reiterated many of the issues which we had covered in the analysis. The table below summarises the overall feedback response to the discussion points raised. There was a general consensus that our broad analytical framework was appropriate:

	Do you think that these cover the main points?			
	None	Yes	No	NA
What is the reason for developing multidisciplinary education?	1	12	1	
What is the evidence for the effectiveness of multidisciplinary education?		14		
What are the factors which facilitate the development of multidisciplinary education?		14		
What are the factors which inhibit the development of multidisciplinary education?		14		

The Scottish Council for Research in Education

'Research in the service of education' is the motto of the Scottish Council for Research in Education. For over 60 years it has put this into action through carrying out research studies in schools and other institutions across the educational system at all levels from pre-school to adult and vocational education. It also provides a range of associated research, information and communication services. SCRE aims to make documents arising from its own research available to those who are interested. Reports in the Project Report series are not specially prepared for publication. Enquiries about SCRE publications are welcome and should be directed to Information Services.

RESEARCH
INFORMATION
EVALUATION
CONSULTANCY
for EDUCATION

SCRE